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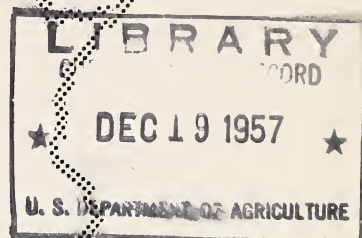
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ARGENTINA

Competitor of U. S. Agriculture in World Markets

By CONSTANCE H. FARNWORTH
and
ARTHUR G. KEVORKIAN

U.S. DEPARTMENT OF AGRICULTURE

Foreign Agricultural Service

FOREIGN AGRICULTURE REPORT NO. 101

Acknowledgment

In preparing this report we relied heavily upon the excellent source material supplied us over the years by the United States Embassy staff in Buenos Aires. We wish to express our appreciation to them, particularly the agricultural attachés, not only for their outstanding reports but also for their aid in making possible useful on-the-spot surveys of Argentine agriculture. The help given us on these surveys by Argentine Crop and Livestock Board officials and members of trade is also greatly appreciated.

The agriculture of Argentina has been widely discussed in published and unpublished reports by experts in the agricultural field. These were used extensively in appraising the competitive aspects of Argentine agriculture. The final conclusions adopted in this report, however, reflect the judgment of the authors and we accept responsibility for their accuracy.

Foreword

This report is one of a series of studies on competition that United States agriculture meets from the principal countries of the world.

Argentina was selected for the first study in South America because its agriculture resembles that of the United States more nearly than does the agriculture of any of its Latin American neighbors. Also, it is the most competitive of the area. Trends in production and exports and past and present policy measures have been studied by the authors for this appraisal of what the future holds for United States agriculture as far as competition from Argentina is concerned.

This report is an outgrowth of years of experience in following Argentine agricultural developments and considerable time spent in the area. Dr. Kevorkian has traveled extensively in Latin America and has had several tours of duty there. He is now the chief of the Latin American Analysis Branch. Miss Farnworth has been a Latin American area specialist for 12 years, concentrating primarily on the River Plata area, and has published several articles on Argentina.

A handwritten signature in cursive script, reading "Gustave Burmeister". The signature is written in dark ink and is positioned above the printed name and title.

GUSTAVE BURMEISTER,
Assistant Administrator.

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ARGENTINA

Competitor of U. S. Agriculture in World Markets

By Constance H. Farnworth and Arthur G. Kevorkian*

ARGENTINA IS ONE of the top four competitors the United States faces in the world market for agricultural products. Its competition is keenest in grains and flaxseed, but it is also felt in the market for livestock products.

The immediate outlook is for some increase in Argentine competition over that of the past decade. Recently the government has been trying to promote farm production and trade in line with its National Recovery Plan. Any substantial longer-range gain, however, depends on many factors, both external and internal.

The source of Argentina's competitive strength has always been largely its vast areas of fertile land. The best of these are located in an area called the Pampa—the Indian name for prairie. It covers about one-fourth of the country and includes at least 80 percent of the cultivated land.¹ This is the area we are most concerned with here since it supports an industry similar to that of our own western areas.

On the Argentina Pampa, however, returns from pastures and returns from crops compete more directly than they do in the Grain Belt of the United States. Much of the land in the Pampa on which cattle ranching is done is also suitable for cultivated crops, and is fairly readily shifted from one of these agricultural enterprises to the other depending upon the comparative advantage of the two. Because of this, production shifts in this region affect the composition of Argentine exports.

From 1900 to about 1930 or 1935, production and export of both grains and beef cattle developed rapidly in the Argentine Pampa. After that, the crop area contracted as land was shifted into pasture and more minor small grains were raised for winter feed. With larger areas of

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This study concerns itself only with the competition Argentina affords the United States in grains, oilseeds, and livestock.

¹ Data by exact type of farming regions are not available. For convenience, regions have been grouped by Provinces as follows:

Pampa: Buenos Aires, La Pampa, Córdoba, Santa Fe, Entre Ríos. *

North: Corrientes, Misiones, Chaco, Formosa, Santiago del Estero, Tucumán, Salta, Jujuy.

West: Catamarca, La Rioja, San Juan, Mendoza, San Luis, Neuquén.

Patagonia: Río Negro, Chubut, Comodoro Rivadavia, Santa Cruz, Tierra del Fuego.

feedstuff available, cattle numbers increased—about 30 percent between 1937 and 1954. However, meat and wool production declined, largely as a result of discouragingly low prices set by the government beginning in the late 1940's. Crop yields did not increase to make up for the reduction in acreage, and the cattle herds continued to build up because prices were not high enough to stimulate ranchers to send their cattle



to the slaughterhouses. At the same time, Argentina's growing population, which has doubled since 1920, was absorbing a larger and larger part of the exportable surplus of crops and livestock products. Because generally over 90 percent of the value of Argentine exports is from agricultural products, the drastic reduction in Argentina's capacity to export since the war has been reflected unfavorably throughout the entire economy. Argentina depends on these exports to pay for its imports of fuel, industrial equipment, and many raw materials. In 1951 the volume of exports (valued at 1935-39 prices) was down to one-half of prewar and in 1953 it was 64 percent. At the end of 1956, it was up to 68 percent—18 percent over 1951—but still not enough to finance the country's import requirements. Argentina's deficit for the year 1956 was in the neighborhood of \$170 million.

Argentina is striving for a healthy economy by rebuilding its agriculture. Numerous measures adopted during the past decade are being revoked as the Provisional Government sets in motion new legislation favoring reestablishment and expansion of the country's agricultural strength.

Agricultural and industrial production are currently showing some response to the new measures. Wool exports are up, beef production for export is running at top capacity, and some grazing land is being shifted back to cultivated crops. Although our immediate concern is the accomplishments of Argentina's new economic program favoring agriculture, developments over the next couple of decades will continue to be of interest to the United States' farmer because of the longer-range possibilities of Argentina's furnishing increasing competition in the world market for grains and livestock products. Argentina is blessed with one of the world's largest areas of first- and second-grade agricultural land, and has numerous opportunities for improving its agriculture. This improvement, however, requires time, careful planning, and skillful execution. For the next few years the country will continue to be confronted with some difficult economic and technological problems.

Position in World Market

Among the major exporters of farm products, Argentina is one of the most dependent on agriculture for foreign exchange earnings. During the past decade over 95 percent of the value of all Argentine exports was provided by agriculture, including forest products.

As far back as 1910, Argentina was the world's leading exporter, in tonnage, of the important trade items—grains, flaxseed, and meat, and it was second in the export of wool. This position was maintained during the prewar years of 1935-39, but has since been lost for grains. In 1955 and 1956 (July-June marketing season), for example, Argentina was in third place as a grain exporter, accounting for only 15 percent of the world's exports in 1955 and 10 percent in 1956. In prewar the figure was 32 percent.

On the other hand, Argentina has generally maintained its lead as an exporter of flaxseed (including oil in terms of seed), but the quantity exported is only about a third of the prewar figure. For meat exports, Argentina holds an enviable position on the world market, supplying almost 30 percent of the world total in 1956—only 4 percent less than in prewar years. It has lost the title as a major meat exporter only twice—in 1952 and again in 1953.

For wool, Argentina dropped to fourth place in 1955, but maintained second place as an exporter of carpet wool.

Argentina produces most of the same agricultural products that the United States does, and also competes for many of the same foreign markets. Because of this, agricultural trade between the two countries is relatively small. Many of the same factors that determine market possibilities in third countries for Argentine products also affect the



Bagging flaxseed in Argentine. United States agriculture considers Argentine flaxseed one of its most competitive crops. In most years, Argentina is still the leading world exporter of flaxseed, even though its shipments are much smaller than before the war, when they made up 80 percent of world trade. In the past 2 decades the United States has shifted from importer to exporter of flaxseed.



Wheat farmers in Buenos Aires Province begin the job of gathering the wheat, piled all over the field. In Argentina most draft power is supplied by horses, but combines are widely used on grain farms. Argentina, like the United States, is a big wheat producer and exporter. About a third of Argentina's wheat goes to Brazil and most of the rest, to Europe—all important markets for United States wheat, too.

United States. Self-sufficiency policies, particularly in Europe, commercial policies, and variations in business activities in importing countries, as well as world conflicts, jeopardize trade of both countries. Weather conditions and domestic policies in all of the principal exporting countries, including the United States and Argentina, also have their effect on the exports of these two competitors.

Destination of Exports

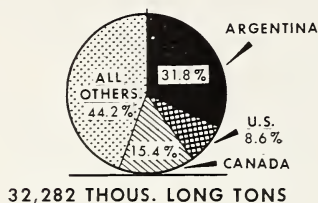
Argentina and the United States both trade heavily with Western Europe. The United Kingdom has long been an important market for Argentina's chilled, frozen, and canned meat; cattle hides; wool; corn; and wheat. Since the war, West German trade with Argentina has made rapid strides, as has trade with Japan and the U.S.S.R.

Agricultural exports from Argentina go to Europe primarily under bilateral agreements or, more recently, a multilateral arrangement, and to other Latin American countries under bilateral agreements.

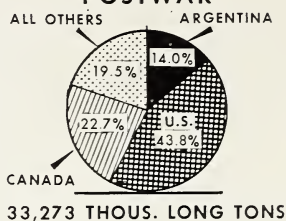
The two most important groups of exports from Argentina are grains, including oilseeds, and livestock products. Wheat and corn are the most important grain exports. Brazil is the principal market for Argentine wheat, accounting for about 30 percent of the exports, and the United Kingdom is generally the best market for its corn, taking over 20 percent of the total.

ORIGIN OF WORLD EXPORTS OF GRAINS ^{1/}

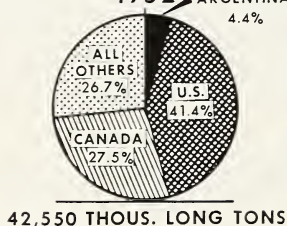
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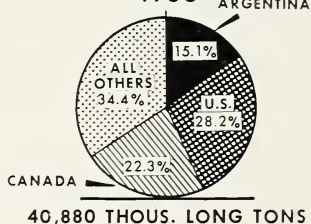
POSTWAR



1952



1955



USDA 1/ Includes products.

FAS-NEG. 1334

The rest of the wheat goes mostly to the other European countries, including the United Kingdom, which was the first market for Argentine wheat until 1941. Italy and Germany have also loomed large as wheat markets in recent years. In fact, Western Europe took about 47 percent of Argentina's exports of wheat in prewar and 58 percent in 1955-56. In addition to Brazil the Latin American countries that buy most of Argentina's wheat exports are Peru, Chile, and Paraguay.

The United States also finds an outlet for the major share of its wheat exports in these same countries of Europe and South America. Almost half of the United States wheat and flour exports go to Europe.

Argentine corn exports go mostly to Europe, too, generally about 97 percent. In addition to the United Kingdom, France, Italy, Belgium, and Germany are particularly good markets. These five countries accounted for about 60 percent of total Argentine corn exports in 1936-40 and 75 percent in 1956. They also accounted for about half of the United States exports of corn.

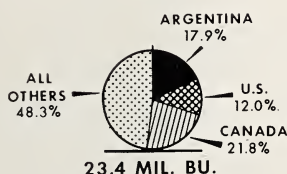
Practically all of Argentina's exports of the other three grains—oats, barley, and rye—also find a market in Europe. Germany and the Netherlands take most of the barley exports. Oats go mostly to Germany, Belgium, the Netherlands, and Denmark, and the rye is usually taken by Italy, Belgium, and the Netherlands, although Poland and Finland have come into the market for rye in the past few years. These last two accounted for 35 percent of the Argentine rye exports in 1955.

As for flaxseed, up until 1943 the United States was the leading

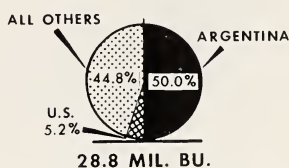
ORIGIN OF WORLD EXPORTS OF FLAXSEED



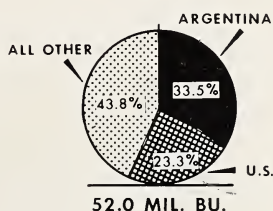
1952



POSTWAR



1955



USDA 1 Includes oil in terms of seed.

FAS-NEG. 1335

market, taking 60 percent of the total Argentine exports. Now the United States is an exporter of flaxseed and oil, second only to Argentina, and they both compete for the available markets in Europe where they usually sell around 90 percent of their flaxseed and oil exports. Five markets in Europe account for almost 70 percent of the total Argentine exports of both the oil and seed. They are the United Kingdom, Germany, France, Italy, and the Netherlands. Russia, however, became an important market in 1954 and 1955, taking about one-fourth of the total.

Most of Argentina's edible oil for export is from sunflower seed. This oil and some sunflower seed find markets primarily in other South American countries and in Europe although during the war the United States was the principal buyer. The United Kingdom has been the principal market in most years, with Chile in second place. In 1953 and 1954, however, Chile purchased all of Argentina's sunflower seed oil, but total exports were small—only 86,000 short tons (in seed equivalent) in 1953 and 11,000 tons in 1954. By 1955 and 1956, Argentina had an oil shortage because of two short crops of sunflower seed and had to import cottonseed oil from the United States to meet domestic requirements until the new 1956 crop was harvested. Seed production in 1956 was the largest since 1951 when about 91,000 short tons of oil were exported.

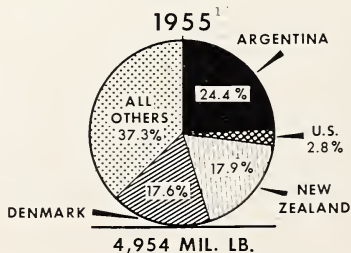
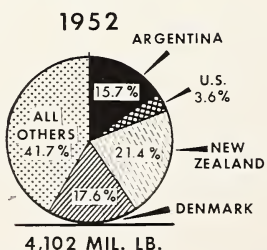
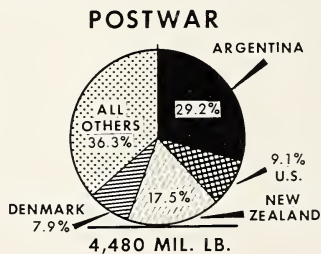
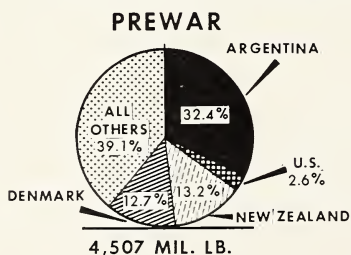
Argentina also exports some cottonseed oil and peanut oil. Most of the cottonseed oil went to the United States until 1946, when the United

Kingdom became the principal market. Peru is the most consistent market for peanut oil with exports to other countries rather spotty, although in many cases in larger quantities than those going to Peru.

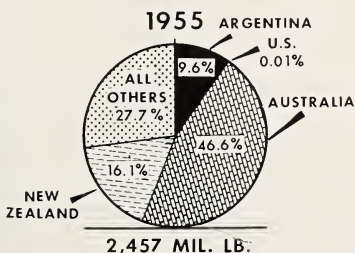
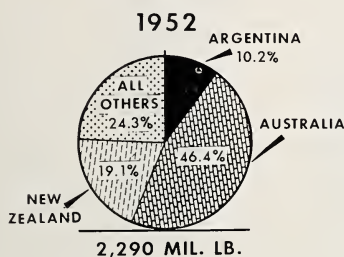
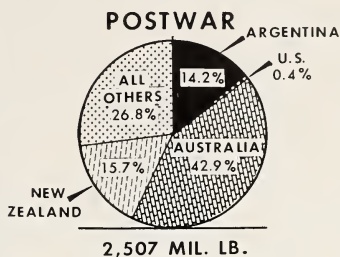
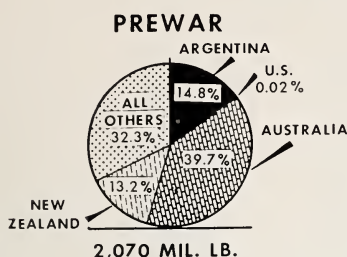
Meat, wool, and cattle hides are Argentina's leading livestock exports but butter, cheese, and casein shipments are heavier than in the prewar period 1935-39.

The most important product in this group is meat. Continental Europe, especially Germany and Italy, imported a large share of Argentina's frozen or continental-type beef in prewar years, with the United Kingdom taking practically all of the chilled type, which is the highest grade of Argentine beef. Chilled beef, in general, accounts for more than half of all Argentine meat exports. Most of the frozen as well as chilled beef has gone to the United Kingdom since 1941. In 1956, however, Germany made a strong bid for the exports of frozen beef, taking over first place as a market, followed by Belgium, but the United Kingdom continued to take practically all of the chilled beef. The outlook for 1957 is for sales of chilled beef to the United Kingdom equal to or possibly greater than in 1956, when it took 546 million pounds. The United Kingdom is also an important market for Argentine frozen and chilled mutton and pork and all canned meat. United States imports of meat from Argentina have been largely canned meat since September 26, 1926. Then, the Secretary of Agriculture issued an order prohibiting the entry into the United States of fresh, chilled, or frozen beef, veal, mutton, lamb, or pork from specified countries where rinderpest and

ORIGIN OF WORLD EXPORTS OF MEAT



ORIGIN OF WORLD EXPORTS OF WOOL



USDA

FAS-NEG. 1337

foot-and-mouth disease exist. The Tariff Act of 1930 and subsequent legislation has continued these restrictions. During the past decade the United States or the United Kingdom have generally been the largest markets for the canned product, but in 5 out of the past 6 years the United States has consistently held the lead.

The principal markets for Argentine wool have been the United Kingdom, United States, France, Germany, Belgium, and Italy. For the decade 1930-39 the United Kingdom was the largest purchaser, taking about one-fourth of total exports. Since then, the United States has held the lead, particularly for Argentina's carpet wool. In 1956 Japan jumped to second place. Its purchases have been largely to meet increased local demand and to help liquidate a trade balance. France showed a remarkable 50-percent increase from 1955 to 1956, putting it in third place as a customer. The Argentinians expect a stronger demand for their wool in 1957, and larger exports this year than a year ago.

Another important livestock product exported from Argentina is cattle hides. In the immediate prewar years the United States and Germany were the principal markets, but following 1939 the United States and the United Kingdom took most of the exports. By 1950, however, the United States no longer was an important market because of an increase in domestic cattle slaughter. In fact, it became a net exporter of hides in 1954. The largest shipments of Argentine cattle hides in 1953 went to the Netherlands, Germany, and the United Kingdom. Substantial sales also were reported as being made to countries

behind the Iron Curtain—Poland and the U.S.S.R. In that year the U.S.S.R. tripled its share to become the second largest buyer and in 1955 it was first, followed by Poland. During 1956 there was a ready market for all of the cattle hides that Argentina could supply, and exports showed a 30-percent increase over 1955. Except for the increasing importance of West Germany as a buyer, the hide export trade varied little from 1955.

For dairy products, Argentina changed from a net importer to a net exporter during World War I after imports from Europe were cut off. At that time the domestic industry was so stimulated to meet local needs that production rose to exceed former imports by substantial quantities. Although domestic consumption has increased considerably since then, Argentina is presently considered a major exporter of dairy products and as such competes with the United States in the world market for these products.

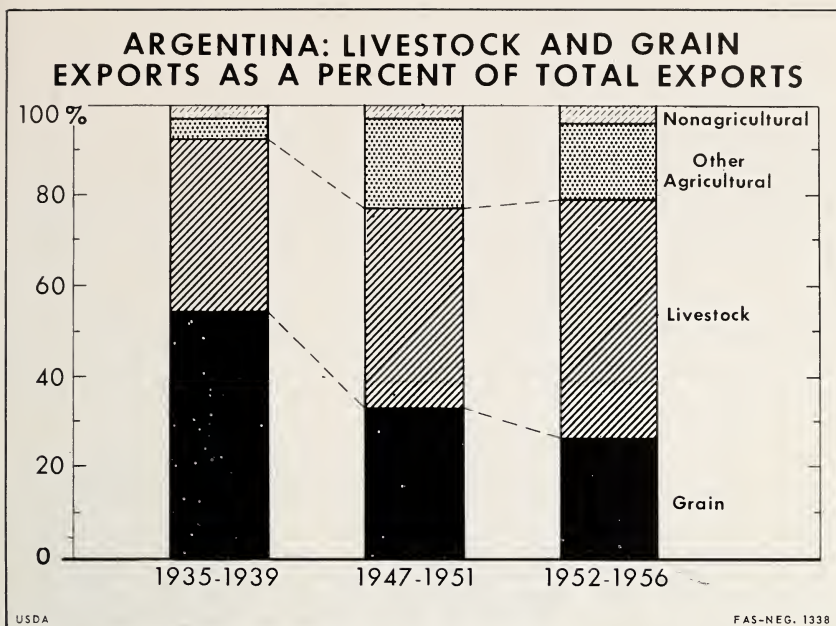
On a quantity basis, casein is the leading dairy export. Argentina accounts for more than half of the world's output and 40 to 50 percent of the exports. Practically all exports were to the United States until 1920 when Germany began making small purchases and became the major buyer in 1931. Germany and England continued to receive the bulk of the shipments until World War II, when the United States was again the most important market. It still is, taking about 60 to 70 percent of the total. The United Kingdom is the second market, and Brazil and Peru the principal ones in Latin America.

Argentine butter has almost continuously found a good market in Latin America since around 1940. Europe, however, is the principal market; and in most years the United Kingdom, a main buyer. In the early war years the United States, too, imported much Argentine butter, but since then has taken little.

Argentine cheese exports increased from about 860,000 pounds in 1925-29 to 3.8 million in 1935-39. Sharp increases followed thereafter until 1948 when 30.9 million pounds were exported. About half to three-fourths of these increased exports went to the United States, and most of the remainder to Latin America, especially to Venezuela. These two countries were still principal buyers of Argentine cheese in 1956.

Argentina also exports significant quantities of lard and tallow. Most of Argentina's exports of lard go to the other Latin American countries, particularly Brazil, Chile, and Peru, but large shipments went to Europe through 1951. The largest exports of lard from Argentina were in 1945, when they reached almost 120 million pounds. Since then they have declined drastically although they were moving upward again in 1956. Over half of these exports went to Peru, Chile, and the United Kingdom.

Argentina has been a major exporter of tallow for years and the world leader in exports in prewar years. After that its exports declined rapidly and reached only a million pounds in 1952. The picture changed in



1956, however, with a sharp upward trend in exports. The principal markets for the tallow are in Europe, particularly in the United Kingdom. Of the South American countries, Peru, Chile, Ecuador, Venezuela, and Brazil have been good markets, but exports to them have dropped sharply from the earlier years. In 1956, however, Chile and Peru took sizable quantities, although the United Kingdom is still by far the best market, followed by the Netherlands.

U. S. Compared with Argentina

Similar agricultural exports are important to the economy of the United States and Argentina. Both seek markets for grains and livestock products abroad. During the prewar years, grains usually made up over half of all Argentine exports (by value) and livestock products, 30 to 40 percent. But in the past 5 years livestock products have averaged over half and grains, only a little over a fourth. In the United States, grain and grain products exported during the 5 years 1951-55 represented over a third of the value of the country's exports of all agricultural products and about 8 percent of its total exports.

The total export picture for each country differs, however. Farm products have occupied a declining position in the United States for many years, giving way to industrial and consumer's manufactured goods. But Argentine trade continues to consist almost entirely of agricultural products. Still United States agricultural exports have increased over the years in relation to past exports, and at the same time Argentina's have declined sharply. For some commodities of which Argentina was

the principal exporter in the past, the United States now holds the lead in the export field—grains, for example. For others, like flaxseed and oil, Argentina maintains a lead.

A drop in Argentina's overall production aggravated by a steady rise in domestic consumption has been largely responsible for Argentina's present export situation. By comparison the United States has increased its agricultural output to meet increasing domestic consumption through price incentives and advances in technology. The Argentine situation, however, is changing some, with the current government's efforts to increase production, coupled with the more favorable exchange rate for exports following devaluation. With this aid, some increase in Argentine competition can be expected. In the meantime, grains, flaxseed, and livestock products continue to highlight the area of competition between the two countries in the export field.

As far back as the early 1900's, the United States and Argentina have been competing in the world market for grains. In the early years the export percentage of both countries was close—12.8 percent of the world total for the United States and 17.4 percent for Argentina. By prewar, the United States had dropped to only 8.6 percent. And, at the same time, Argentina's increased dramatically, to 31.8 percent. The ensuing years witnessed a complete reversal in the positions held by the two countries in the grain market, and the year 1955-56 found the United States with 37.9 percent and Argentina with 10.2 percent of the world market.

During 1956-57 a larger Argentine wheat harvest is increasing competition from that product.

Argentine *wheat* is concentrated largely in a central productive region of the country known as the Pampa. But the United States has two principal wheat areas, one for soft wheat and the other for hard winter wheat. Hard Red Winter wheat is grown here on more acres than is any of the other classes of wheat, while in Argentina hard bread wheats constitute about 20 percent of the sown acreage and semihard and soft wheats make up the rest. Unlike the United States, Argentina can produce spring and winter varieties of wheat side by side throughout its entire grain belt. The winter varieties, however, predominate in the southern and southwestern, or cooler, parts and the spring varieties, in the warmer, or northern and northeastern, parts. This is the reverse of seeding practices in the United States. In addition the wheat zone of Argentina is located within about 450 miles of the seaport, whereas distances to port are sometimes over 1,000 miles in the United States. Cost of production, too, used to be advantageous in Argentina; it was much less than in the United States. But the difference appears to be narrowing, as costs rapidly increase in Argentina.

Wheat is the most sensitive of the commodities in which the United States and Argentina compete, because of the current large exportable

surpluses in the world and the keenness of the competition for available markets. It is now the principal grain export of both countries although in prewar years corn exports exceeded wheat from Argentina. In spite of this, Argentine wheat exports have generally been less than in prewar years, indicating a decline in both its principal grain exports. And, after the drought that cut the 1951-52 crop, Argentina imported wheat for the first time from the United States. United States exports of wheat, on the other hand, have increased sixfold, and the United States has replaced Argentina as the principal world supplier.

TABLE 1.—*Wheat: Production, yield per acre, exports, and consumption, United States and Argentina, averages 1935-39 and 1945-49, annual 1951-55*

Item and country	Average		1951	1952	1953	1954 ¹	1955 ¹
	1935-39	1945-49					
Production: ²	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>
United States...	759	1,202	981	1,299	1,169	984	935
Argentina.....	222	194	77	280	228	283	193
Yield per harvested acre:	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
United States...	13.2	16.9	16.0	18.3	17.3	18.1	19.8
Argentina.....	14.0	16.9	11.4	20.3	18.5	20.9	19.2
Exports: ³	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>
United States ⁴	53	415	475	317	217	274	345
Argentina ⁵	121	78	2	93	110	⁶ 132	⁶ 93
Per capita consumption:	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
United States...	3.75	3.36	3.12	3.08	2.98	2.93	2.86
Argentina.....	7.31	6.98	5.38	6.45	6.88	6.60	7.33

¹ Preliminary.

² Years shown refer to years of harvest in the United States. Harvests of the United States are combined with those of Argentina which immediately follow; thus the crop harvested in the United States in 1955 is combined with a forecast for the Argentine harvest which began in late 1955 and ended early in 1956.

³ Includes flour in terms of grain.

⁴ Marketing year July 1 to June 30.

⁵ Calendar year following harvest.

⁶ Wheat flour excluded.

During this period, production of wheat in the United States has been expanding, and the percent of production exported is increasing steadily as the margin between domestic production and consumption widens. A downward trend in per capita consumption of wheat and flour in this country has added to the margin for export. Argentina, on the other hand, has not changed production, the percent of production

exported is less than before the war, and total and per capita consumption is increasing. And, although the trend in Argentina at present appears to be back to cultivated crops and away from livestock, no great increase in wheat area has been planned for the immediate future. Plans have been made, however, to expand corn acreage and production.

Historically, *corn* has been a leading crop both in Argentina and the United States—in one for export and in the other for feeding livestock and exporting the corn-converted products, such as pork and lard.

The area where corn is grown in Argentina resembles the "old South" of the United States in climate and the midwestern Corn Belt in the soils and topography. In both countries the western movement of the Corn Belt is hindered by dryness. The principal corn area of Argentina is located within 125 miles of tidewater, so overland transportation costs are small compared with those in the United States. Argentina also has held the enviable position of producing corn at a lower cost than have most exporting countries of the world, but during the past decade higher costs and declining yields have threatened this advantage. The United States by comparison has, through the use of hybrid seed and fertilizers, increased production on smaller acreage. It has always produced much more corn than has Argentina, but exports only about 3 or 4 percent, while Argentina has exported three-fourths of its production. Corn output and exports from Argentina have, however, moved down markedly since prewar years. At the same time, United States exports have more than doubled, so now the United States greatly exceeds Argentina as an exporter. Argentina attempted to increase its corn production in 1956-57, but dry weather damaged the crop and only 115 million bushels are forecast.

The corn grown by the United States and Argentina is of different varieties. Argentina's is generally the flint variety that has small hard kernels and a low water content and is used largely as poultry feed by the European countries. On the other hand, corn grown in the United States is the large-kerneled dent varieties used primarily for fattening cattle and hogs. Both countries, however, seek markets in Europe for their exportable surpluses of corn, and no doubt Argentina's plans for increasing its corn production will be largely determined by the ability of Europe to absorb larger quantities of its product. The Government of Argentina, however, recently announced it will make every effort to encourage its exports of corn from the 1956-57 harvest.

Even though Argentina's production of *flaxseed* has also declined drastically since prewar and its exports are down substantially, it has maintained its lead as a world exporter in most years, and flaxseed is still considered one of Argentina's most competitive crops. The United States was a net importer of flaxseed before the war when Argentina exported about 80 percent of the world total of 51 million bushels. But since then United States production has quadrupled and its exports

TABLE 2.—*Corn: Production, yield per acre, and exports, United States and Argentina, averages 1935-39 and 1945-49, and annual 1951-55*

Item and country	Average		1951	1952	1953	1954 ¹	1955 ¹
	1935-39	1945-49					
Production: ²	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>
United States..	2,316	3,057	2,899	3,279	3,192	3,058	3,230
Argentina.....	302	155	80	140	175	100	152
Yield per harvested acre:	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
United States..	25.0	35.7	35.9	40.4	39.6	38.1	40.6
Argentina.....	28.0	29.1	22.7	23.6	29.4	21.8	27.5
Exports: ³	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>
United States..	51	82	81	144	97	101	121
Argentina.....	237	70	19	24	45	79	10

¹ Preliminary.

² Years shown refer to years of harvest in United States. Harvests of United States are combined with those of Argentina which follow; thus the crop harvested in the United States in 1955 is combined with preliminary forecasts for the Argentine harvest which began early in 1956.

³ Marketing years: Argentina, Apr. 1 to Mar. 30; United States, Oct. 1 to Sept. 30.

have increased. Argentine exports in 1956 were less than 15 percent of prewar shipments, but indications are that in 1957 Argentina's competitive position will be much stronger for the available markets in Europe.

Yields of flaxseed in the two countries are comparable, and many of the same varieties are grown. In Argentina, flaxseed is produced in the heart of the corn belt, where it competes with corn for the land, but in general it does relatively better than corn or wheat to the east and north of the main corn zone. In the United States, flax competes with spring wheat.

Since flax, like wheat and corn, is a cash crop in Argentina, with most production going into export, it is also responsive to relative price changes for these three major crops. In turn, these crops are sensitive to the prices received for products from the livestock industry since they compete for some of the same lands used for pasture in the Pampa area.

The livestock industry is essential to the economy of both the United States and Argentina. *Cattle* take the lead in the livestock enterprise of the two countries. They are found throughout the countryside of both places, although unlike the United States, Argentina has most of its cattle in the humid eastern region.

Steers in Argentina are fattened successfully on alfalfa and other

grasses that grow abundantly in some areas the year round. Corn is not generally fed as in the United States except in drought years when the corn crop does not warrant harvesting.

TABLE 3.—*Flaxseed: Production, yield per acre, and exports, United States and Argentina, averages 1935-39 and 1945-49, annual 1951-55*

Item and country	Average		1951	1952	1953	1954 ¹	1955 ¹
	1935-39	1945-49					
Production: ²	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>
United States...	11.0	39.1	34.7	30.1	36.7	41.3	41.2
Argentina.....	59.6	31.6	12.3	23.0	16.1	15.9	9.4
Yield per harvested acre:	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
United States...	7.6	9.6	8.9	9.1	8.2	7.3	8.3
Argentina.....	9.8	10.5	11.1	10.7	11.8	10.2	8.5
Exports:	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>	<i>Million bushels</i>
United States ³	.1	1.8	5.6	4.4	17.8	24.2	17.3
Argentina ⁴ ...	51.3	17.2	4.2	13.4	28.8	17.4	8.2

¹ Preliminary.

² Harvest of the United States is combined with that of Argentina which immediately follows: thus the crop harvested in the United States in 1955 is combined with the Argentine crop which begins late in 1955 and ends in early 1956.

³ Marketing year July 1 to June 30.

⁴ Calendar year following harvest.

TABLE 4.—*Livestock: Estimated numbers, United States and Argentina, averages 1936-40 and 1946-50, annual 1953-56*

Type and country	Month of estimate	Average		1953	1954	1955 ¹	1956 ¹
		1936-40	1946-50				
Cattle:		<i>Million head</i>	<i>Million head</i>	<i>Million head</i>	<i>Million head</i>	<i>Million head</i>	<i>Million head</i>
United States...	January	66.7	79.0	94.2	95.7	96.6	96.8
Argentina.....	July ² ...	33.8	41.2	40.9	44.0	44.0	45.4
Sheep:							
United States...	January	51.4	35.0	31.9	31.4	31.6	31.3
Argentina.....	July ² ...	44.9	50.0	51.0	46.8	46.0	47.4
Hogs:							
United States...	January	48.4	57.6	51.8	45.1	50.5	55.2
Argentina.....	July ...	3.7	3.0	(³)	(³)	(³)	3.9

¹ Preliminary.

² Average for 2 to 4 years only.

³ Not available.

A combination of favorable factors that make Argentina a low-cost producer of uniform, high-quality beef is characteristic of the country's livestock zone: Mild climate, permitting year round grazing and requiring only a minimum of shelter; low-cost pastures for fattening; nearness of livestock area to packing plants and coastline; and relatively low-cost labor.

Both countries have large numbers of good beef cattle, but a greater share of the United States slaughter derives from dairy breeds than in Argentina. As a result the United States has a less-uniform quality of beef than Argentina has.

Sheep are also widely scattered throughout Argentina and the United States. In Argentina, numbers of sheep have increased from prewar years, but in the United States they have declined steadily followed by a drop in wool production.

Hogs are produced in the grain belts of both countries, where feed is readily available. Their production is a minor industry in Argentina, because it has generally been considered more profitable in the farming pattern of the country to export the corn for cash than to feed hogs for export. However, the raising of hogs and the export of pork products, particularly lard, are carried on successfully and on a much larger scale in the United States. *Lard* production has been declining in Argentina of late, but the trend for 1956 is upward again and production is expected to be still larger in 1957. Argentina could become a much stronger competitor. Most of its lard is for export, and the government is promoting sales abroad through the application of the free exchange rate to lard exports and by establishing an export quota equal to 95 percent of production. Also, Argentina has the necessary conditions for expanding hog production if the farmers become convinced of the profitableness of that type of farming and markets can be found. *Tallow* and *greases* are also produced and exported by the United States and Argentina. In both countries, production and exports were up in 1956. Competition from Argentine tallow could be increased considerably, as demonstrated in the past.

Argentina is generally the world's foremost exporter of *meat*, and the first or second largest per capita consumer. Beef is the principal meat consumed. By contrast, United States exports of meat are small. Per capita consumption of meat in the United States is less, too, and usually more pork than beef has been eaten in this country until recent years. Consumption of meat in the United States in prewar was 126 pounds per person annually and in Argentina 215 pounds. In 1955, Argentine per capita consumption increased to about 255 pounds and the United States consumption increased to 167 pounds.

Production of meat in the United States has been increasing, too, as the Southern States, which for years practiced one crop farming, are

TABLE 5.—*Lard and tallow and greases: Production and exports, United States and Argentina, averages 1935-39 and 1945-49, annual 1952-56*

LARD							
Item and country	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Production:							
United States..	1,630	2,292	2,881	2,355	2,330	2,660	2,775
Argentina.....	20	60	32	30	26	22	43
Exports:							
United States..	166	476	634	423	465	562	612
Argentina.....	17	47	6	22	10	10	22
TALLOW AND GREASES							
Production:							
United States..	1,098	2,068	2,501	2,923	2,940	3,170	3,398
Argentina.....	196	380	362	361	347	412	475
Exports:							
United States..	21	131	785	1,241	1,205	1,337	1,528
Argentina.....	130	79	1	4	9	(²)	21

¹ Preliminary.

² Less than 500,000 pounds.

shifting to livestock production. Argentine production and exports for 1956 were larger than in 1955 and are expected to be still larger for 1957. Consumption of meat in Argentina could decline some in 1957, too, with the removal of the meat subsidy if an increase in domestic prices follows, in which case there would be additional meat for export. The continued heavy slaughter of recent months, however, may eventually cut down Argentine herds to the extent that, in the not-too-distant future, the country's meat exports could again decline. This will depend primarily on the current handling of slaughter and the success and extent of the drift back to cultivated crops.

Wool is one of the leading Argentine exports to the United States and one of the most important products in the country. The United States imported about 37 percent of its wool from Argentina in 1953 and 28 percent in 1956. Although the United States is also a producer of wool—275 million pounds in 1956—wool production here is of the apparel type rather than the carpet wools imported from Argentina. United States production is not sufficient to fill domestic requirements. These imports, however, do provide a measure of competition to our own wool on the domestic market.

Argentina is second to the U.S.S.R. as a producer of carpet wool.

TABLE 6.—*Meat: Production, exports, and consumption, Argentina and United States, averages 1934–38 and 1946–50, annual 1952–56*¹

Item and country	Average		1952	1953	1954	1955 ²	1956 ²
	1934–38	1946–50					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Production:							
United States..	16,182	22,262	23,035	24,895	25,333	26,896	28,056
Argentina.....	4,240	5,215	4,800	4,235	4,514	5,406	³ 6,372
Exports:							
United States..	117	409	149	151	122	137	185
Argentina.....	1,460	1,309	646	678	886	1,095	³ 1,403
Per capita consumption:							
United States ⁴	<i>Pounds</i> ⁵ 126	<i>Pounds</i> 149	<i>Pounds</i> 144	<i>Pounds</i> 159	<i>Pounds</i> 153	<i>Pounds</i> 163	<i>Pounds</i> 167
Argentina.....	215	239	230	202	194	226	255

¹ Beef and veal, mutton and lamb, pork, goat, and horse; excludes offal, lard, rabbit, and poultry.

² Preliminary.

³ Excludes goat and horse.

⁴ Civilian consumption only.

⁵ 1935–39.

TABLE 7.—*Wool: Production and trade, United States and Argentina, averages 1936–40 and 1946–50, annual 1952–56*

[Actual weight]

Item and country	Average		1952	1953	1954	1955	1956
	1936–40	1946–50					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Production: ¹							
United States..	425	285	266	271	262	275	275
Argentina.....	411	450	407	400	365	357	386
Exports:							
Argentina ² ...	306	357	234	342	⁵ 215	⁵ 240	239
Percent to U.S.	20	64	55	44	43	38	32
U.S. imports ³ ⁴	224	737	555	544	449	304	354
Percent from							
Argentina.....	24	33	17	37	29	29	28

¹ Wool produced mostly in the spring in the United States is combined with that produced in the season beginning Oct. 1 of the same year in Argentina.

² Calendar years: averages 1935–39 and 1945–49.

³ Fiscal year.

⁴ Clean weight basis.

⁵ Revised totals: 1954, 210; 1955, 231.

Most of it is exported; only about 10 percent is consumed domestically. Total wool exports average between 50 to 70 percent of the wool clip. The outlook is for increasing wool supplies in Argentina for export in the near future with the present favorable price situation. A sharp reduction in sheep and lamb slaughter numbers in 1956 indicates that farmers are holding them for wool production.

Argentina continues to be an important source of *casein, butter, and cheese*, although cheese exports have been declining steadily since 1953. This has occurred in spite of a record production of 279 million pounds in 1956, which went primarily into increased domestic consumption. Production, however, is still not impressive when compared with that of the United States, and exports are not large. About half of Argentina's cheese is the hard, or grating, varieties used for soups and many Italian dishes and desserts. Another quarter is of the semihard table cheese. Most of the cheese produced in the United States is Cheddar. A large part of the Argentine cheeses finds a market in the United States, generally about half of the exports.

TABLE 8.—*Cheese: Production and exports, United States and Argentina, averages 1935-39 and 1945-49, annual 1952-56*

Item and country	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Production:							
United States..	673	1,141	1,170	1,344	1,383	1,363	1,393
Argentina.....	81	197	224	242	239	285	279
Exports:							
United States..	1	154	4	² 6	² 5	² 23	48
Argentina.....	4	27	6	10	7	7	7

¹ Preliminary.

² Not including donations under section 416.

Butter exports from Argentina approximate those from the United States at present, and they compete for the same markets in Europe and Latin America. In 1956, Argentine exports totaled 33.7 million pounds compared with 40.4 million pounds from the United States. In prewar, however, exports from Argentina were much larger than those of the United States. Argentina produces considerably less butter than the United States does, but it exports a much larger share of what it produces. Argentine exporters are looking forward to larger exports for 1957 than in 1956 if weather conditions remain favorable and markets can be found because new factories in the country will permit increased production.

TABLE 9.—*Butter: Production and exports, United States and Argentina, averages 1935-39 and 1945-49, annual 1952-56*

Item and country	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Production:							
United States..	2,195	1,607	1,402	1,607	1,628	1,552	1,558
Argentina.....	68	100	103	127	134	126	145
Exports:							
United States..	2	16	² 1	² 4	² 3	² 22	40
Argentina.....	19	23	3	33	34	28	34

¹ Preliminary.

² Not including donations under section 416.

Casein production continues to increase in Argentina, while United States production has dropped sharply since prewar years. Argentina consumes little casein domestically; exports comprise from 80 to 90 percent of production. They declined in 1956 reportedly because producers and exporters were dissatisfied with export returns, and claimed they could no longer compete in the world market. The stocks built up, however, are still available for export, and may increase with the recent lowering of the minimum export price and the removal of the 15 percent export tax. Argentina does not compete with the United States as a casein exporter because the United States is on a net import basis, but it does interfere with possible increases in domestic production because of its competition on the domestic market. The United States is the principal market for Argentina's casein, taking 60-70 percent of its exports.

TABLE 10.—*Casein: Production and exports, United States and Argentina, averages 1935-39 and 1945-49, annual 1952-56*

Item and country	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Production:							
United States..	48	20	7	6	5	(2)	(2)
Argentina.....	41	66	62	78	84	77	90
Exports:							
Argentina.....	38	66	46	88	74	84	68
Percent to U.S.	16	53	46	56	59	69	63

¹ Preliminary.

² Not available.

Argentina's potential capacity for increasing its dairy production is great and a constantly expanding dairy industry appears inevitable. Any large expansion, however, depends upon future domestic policies affecting the industry and on available markets, particularly in the export field.

Factors Affecting Competition

Many internal factors in Argentina, as in the United States, affect the competitive nature of the agriculture of the country. The availability of foreign markets for exportable surpluses of agricultural products is of utmost importance. But by and large the principal factors that determine the competition that Argentina already affords the United States in the export field—and the future of this competition—are the internal policies for trade and marketing, the degree of domestic demand, the physical resources of the country, and the ability to use the land efficiently and effectively.

Argentina is a country of considerable land resources making possible the production of large quantities of competitive products for export. Its exceptional ability to produce exportable agricultural products over the years has been decided largely by its extensive areas of rich soil, and year-round pastures and mild climate, which, together with its relatively low wages, have given Argentina a distinct economic advantage as a low-cost producer. Its topography and climate favor a diversified agricultural economy, which differs from the agriculture of most Latin American countries and resembles more closely that of the United States.

A highly industrialized economy is not characteristic of the Argentine primarily because it lacks fuel resources. The economic structure of the country, therefore, depends chiefly upon the maintenance of a foreign outlet for its agricultural products, which must be disposed of on a world market at world prices. Argentina's population used to be small in relation to its production so the bulk of its production could be exported. This has changed some over the years, however, as its population has grown. At the same time, production slowed as a result of a lagging technology, dissatisfaction with prices and marketing procedures, a deteriorating transport system, and lack of adequate inland storage facilities. All these have helped whittle down the country's ability to increase its competition in the world market.

Aid to Exports

Argentina, like the United States, does not always find it easy to sell all of its agricultural surpluses abroad at reasonable prices, for there is competition not only between these two countries in third markets but also from other important surplus producers such as Canada and Australia.

In an attempt to keep its products moving abroad at an advantageous price in the face of this competition and to increase and keep available essential supplies for export, Argentina has resorted to various production programs and trade practices. These include bilateral and, later, multilateral agreements, use of multiple exchange rates and currency devaluation, direct and indirect payments to exporters, varying degrees of government participation in trade, differential price systems, price support programs, and deficiency payments to producers.

Aside from these more direct approaches, there exist several new and old laws affecting the production and marketing of agricultural products. There is, for example, a program aimed at assisting the development of smaller farms by affording the rural worker the opportunity of becoming an owner, and, on a pilot basis, providing credit assistance in the adoption of improved farming practices. More recently, a National Economic Restoration Fund has been established, part of which is to be used for technological and economic advances in agriculture and livestock, and a basic agreement has been signed with the United Nations under which Argentina is to receive technical assistance from various United Nations agencies including FAO. On May 29, Argentina and the United States signed a general agreement for a program of technical assistance and cooperation. Argentina is the last Latin American country to sign such an agreement. In recent years, too, a number of government decrees and regulations affecting cooperative development have been aimed at improving the farmer's position in production and marketing.

One important means Argentina has used in attempting to promote exports and assure itself a future market has been trade and payments agreements and barter or supply agreements. These have been used extensively since 1946, when there was great demand abroad for Argentine foodstuffs and agricultural raw materials and Argentina was in real need of industrial raw materials and manufactured items. Later, in 1948, when the disrupting effects of the war on agricultural production began to diminish and world production increased substantially, the seller's market weakened, and demand for Argentine products slackened. Then, the majority of the agreements that Argentina concluded began placing greater emphasis on securing outlets for export surpluses and husbanding foreign exchange resources. The number of agreements increased substantially and, in January 1956, Argentina had entered into 29. They have been made with all of Argentina's important trading partners, except the United States, and involve the exchange of Argentine agricultural products for individual items.

In general the agreements have been drawn up so that, although lists of commodities and prices are mentioned, neither side is obliged to purchase the amounts named. Instead the intention is to plan and facilitate trade. The amount of trade actually achieved, however, has

frequently fallen short of the figures in the agreements. The duration of the agreements is usually from 2 to 5 years, with provision for continuance by tacit consent unless either party gives notice of termination.

Since needs and availabilities of each country change from time to time, the commodity lists are subject to annual revision, which, with other modifications, is made through additional protocols. Most agreements establish a system of payments through a clearing account, and fix the maximum amount of credit either country may derive from this account.

Under these circumstances, Argentina has had official trade negotiations going on almost all the time. Substantial net indebtedness, however, accumulated under the trade agreements with European countries and Japan. Thus, in the early part of 1956 the Provisional Government of Argentina announced that its new policy under its recovery plan was to extend multilateral trade wherever possible, even though bilateral arrangements with certain countries have been continued. As a result, a multilateral trading system (the "Paris Club") between Argentina and Western Europe went into effect on July 2, 1956, with 9 of the 11 countries that originally took part in the discussions participating in the new arrangement. Those are the United Kingdom, Sweden, Norway, Denmark, Austria, Belgium-Luxembourg, Netherlands, Switzerland, and France. Italy and West Germany joined later. The plan allows Argentina to convert balances with one European country in buying from another, and generally promotes freer trade within the area.

Recently, Argentina has negotiated several new trade and payments agreements with neighboring Latin American countries, primarily to provide a payment mechanism with these countries but also to promote trade. A feature of the Bolivian and Uruguayan agreements is the establishment of intercountry committees to meet at regular intervals to consider means of expediting and promoting trade and payments.

It is still too early, however, to assess the value of the Provisional Government's attempts to improve its trade through multilateralism, but its already heavy trade with Western Europe is expected to increase.

Another means Argentina has used to stimulate trade has been, first, through its multiple exchange rates and, later, by devaluation and the establishment of a single more-liberalized rate of exchange. Although multiple rates have been in effect in Argentina since 1930, exchange control was not rigorously applied until 1947, when there was a fundamental disequilibrium in Argentina's balance of payments. Three years later, at the time of the general devaluation in 1950, two official fixed rates, and an officially controlled "free market rate," were established under the Argentine exchange control system. The basic buying rate for exchange arising from a large part of exports was 5 pesos to the dollar, with rates for other foreign currencies equivalent to their value

in terms of dollars. There was also a preferential buying rate of 7.50 pesos to the dollar applicable to exports of numerous commodities. The officially controlled free market rate was kept near 14 pesos to the dollar.

A series of piecemeal devaluations began early in 1952 because of the difficulty in moving exports. The first of these applicable to buying rates was brought on by the need to allow private enterprise a larger amount of peso proceeds from its exports of agricultural products to cover domestic costs and makes sales abroad remunerative. Devaluation of buying rates was carried out by granting mixed rates for certain commodities or by shifting the classification of a commodity from one rate group to another having a higher rate. The mixed rates ranged from 6.25 pesos to the dollar to 12.16. For example, a mixed rate of 6.25 pesos to the dollar was established in 1952 on wool exports paid for in sterling or dollars, 50 percent of the exchange being bought at the 5 peso rate and 50 percent at the 7.50 rate. Several items were moved from the 5 peso rate to the 7.50 peso rate and some to the free market rate.

Where exports were under control of the government's State Trading Agency, Instituto Argentino de Promoción del Intercambio, more popularly called IAPI, the basic rate of 5 pesos to the dollar continued to apply to the export prices, but the producer was guaranteed a substantially higher price for his product than its actual export value in pesos. This was true for grains, on which the government sustained substantial financial losses in peso terms in order to stimulate their export. These losses were theoretically recovered through the multiple exchange rate system used by the Central Bank, whereby grains were exported at 5 pesos per dollar but the exchange so earned could be sold at higher rates for imports. Meat exports were stimulated by the government through direct subsidy payments to exporters, barter sales, and the use of the multiple exchange rates. Higher rates were applied to meat exports—canned meat was granted the free market rate. These higher rates were effective in stimulating private exports, wool especially. They also increased dollar earnings, but were expedients rather than basic reforms.

IAPI, however, continued to have large operating deficits, and although payments to producers were greater than the peso export return, prices were not attractive enough to encourage production. Inflation continued and in October 1955 the Provisional Government initiated an exchange reform, as part of its National Recovery Plan. Its object is to have eventually a simple free rate of exchange, a minimum of state interference in trade without subsidies, and control of imports by tariffs.

As a first step in this reform, the government devalued the peso, through establishment of a single official rate of 18 pesos to the dollar, with equivalent rates for other currencies. At the same time, a free

market was opened, in which exchange rates are determined by demand and supply. The new official rate has tended to bring the Argentine peso more nearly into balance with other world currencies and is therefore a stimulant to trade. As an additional encouragement to trade, export of some products is authorized by the Central Bank at the free market rate—for example, all pork products including lard.

The government has also set up “aforo” values on its export products. The aforo is a fixed minimum price set on an exported item by the Central Bank for the purpose of determining the amount of exchange that must be surrendered by the exporter from his proceeds at the official rate of exchange. This value is used, too, for the purpose of computing retentions and other taxes. When the government wishes to stimulate the export of a product, it lowers the aforo value, so that the product is better able to compete successfully on the world market. Competition is made easier because the proceeds received from export sales in excess of the aforo value can be negotiated at the free market rate, which was about 43.01 pesos to the dollar on July 15, 1957. The Central Bank changes the aforos at its discretion, trying to keep them at about 10 percent below the world price in order to take into account variations in world prices due to quality differences or short-term fluctuations. With the freeing of the trade in oats, barley, rye, and linseed, however, the aforos for these products were fixed so as not to be below the minimum price on the domestic market for each product, plus 15 percent for merchandising. Trade in wheat products is also free except that they are subject to the existing aforos. The Grain Exchange has been reopened and all grains except wheat are quoted on the exchange.

Retentions are applied to some exports, which move at the 18-pesos-to-the-dollar rate, and they range from 10 to 25 percent of the aforo value. The percent is set by commodity. These retentions tend to be anti-inflationary. They reduce the proceeds accruing to the exporter through devaluation, and also help hold down the domestic price of export products. On occasion, retentions have been removed, however, to promote exports of particular items. The proceeds from the retentions have been used by the government to pay subsidies and for agricultural development.

To further stimulate exports, most products are again being handled by private trade. In addition, there has been a substantial increase in support prices to producers for grains and oilseeds and a rise in livestock prices. These are showing promise as aids to production and hence to export availabilities.

Growth of Domestic Demand

Plentiful food supply and large consumption are characteristic of the Argentine economy, which furnishes important quantities for export in addition to filling domestic requirements.

Per capita consumption of foodstuffs in 1955 reached an estimated 3,415 calories per day, which is high even when compared with other countries of the world that eat well. Consumption of beef and bread has always been heavy. But the growing population of Argentina has cut more and more deeply into annual production over the years. Without a compensating increase in production, exports have been declining drastically. This has been especially marked since the downturn in cereal crops after 1935.

Apparent annual consumption of cereals in Argentina in the 1920's averaged, roughly, 75 million bushels of wheat, 75 million of corn, and 650,000 short tons of oats, barley, and rye. By the late 1940's it had climbed to around 120 million bushels of wheat, 80 million or 90 million of corn, and 1.2 million short tons of the minor small grains. Exports had fallen in the meantime, from about 60 percent of cereal production to between 40 and 50 percent. Also the number of cattle slaughtered for local consumption rose, from approximately 4.3 million head per year in the 1920's to well over 8 million in recent years. In addition, apparent disappearance of beef per capita rose some 10 or 12 percent after the war, as a result of rising wages and low domestic meat prices. Per capita consumption declined after the drought years that followed 1950 but, in 1956, reports indicate beef consumption was the highest in years, following a record slaughter.

Most of the increase in dairy production was absorbed by the growth in domestic demand. Consumption of butter has risen from around 20 million pounds per year in the 1920's to 90 million or more since 1950. In the same period, consumption of cheese rose, too, from 35 million pounds per year to over 200 million pounds.

These trends certainly do not mean that Argentina is any danger of a food scarcity. The relatively low efficiency in current use of its land provides a margin of safety for the future. In a country that depends on its agricultural exports to pay for the greater part of its essential imports, however, increasing consumption and shrinking exports have serious implications for the whole economy. Year by year, imported goods become less plentiful. Industry is forced to restrict its use of less-expensive or technically superior imported equipment and materials, thereby incurring higher costs. Meantime, the general public must content itself with a narrower choice of goods and lower marginal rates of satisfaction.

Marketing and Prices

The marketing of agricultural products for export and control of prices in Argentina over the years moved from a minimum of government intervention to almost complete government control in 1946. The trend in 1956 and 1957, however, is again toward more freedom in the marketing of agricultural products and in pricing.

The year 1946 was a singular year in Argentine history. It was marked by a multiplicity of government measures that altered the basic structure of the economy and shaped the nation's new economic policy. The cornerstone of the new system was laid in March, when the government nationalized the Central Bank of Argentina for the declared purpose of "Concentrating the financial and economic powers of the nation." In addition to its many other controls, several semiautonomous agencies concerned with agricultural policy and marketing, such as the Regulating Board for Agricultural Production, the National Meat Institute (Instituto Nacional de Carne), or the INC, the National Grain and Elevator Commission (Instituto Nacional de Granos y Elevadores), or INGE, were brought under the control of the Central Bank. Another step in the process came with the elimination of the former Argentine Trade Promotion Corporation in May, and its substitution by a new government agency, the Argentina Trade Promotion Institute (IAPI), which also was under the Central Bank.

Operations of this institute began in August, and thereafter it engaged in the control of exports of a growing list of agricultural and livestock products, the determination of local purchase prices and export prices for such products, the purchasing in foreign countries of commodities for several government departments and government projects, and the control over foreign purchases and domestic distribution of crude rubber. Wheat, corn, and other cereals and numerous agricultural and animal products, which comprise the major part of Argentina's export and domestic trade, were bought from producers by IAPI and then sold for domestic use or to exporters for sales abroad. Producers received fixed prices from IAPI. Sales to exporters were also made at prices set by it, but varied with conditions of demand in importing countries. IAPI usually did not take physical possession of the commodities, and in some cases it performed no marketing function other than to determine prices and approve sales. Its marketing functions were conducted through its subsidiaries, INGE and the INC.

An original objective underlying the institute's operations was that it should take as much of a profit as possible from high export prices, and return no more to Argentine agriculture than was deemed necessary to maintain production. This policy, however, discouraged output and, after 1952, increases in domestic farm prices were found necessary in order to encourage agricultural production. These increases, combined with declines in prices abroad, resulted in heavy losses for the organization, and the financing of these losses became an important inflationary factor.

Farmers were still discouraged, however, because most farm prices were still below their prewar parities. For example, the 50 pesos per quintal (100 kilos) for wheat in 1952, 1953, and 1954 was 28 percent of the price of 17.80 pesos in 1937. The buying power of wheat as adjusted

for the change in the cost of living was still less than half that in prewar years. Corn, flax, and most other crops were also below prewar parity. The only important exception was cotton.

Domestic sales were also made at fixed prices, which remained unchanged for long periods of time. Costly subsidies were paid to keep prices low for urban consumers. There were subsidies to cover the difference between prices received by farmers for wheat and the somewhat lower prices at which wheat was delivered to millers for conversion into flour for local consumption. In the case of linseed oil, the government purchased the oilseed from the farmers in order to cover the support price to the farmer for the seed. The oilseed then was allocated to crushers and the products repurchased by the government. To maintain consumer prices, the oils were sold at a lower price to blenders who in many cases were also the crushers. Payments also were made to local slaughterhouses that provided meat for domestic consumption.

After the Provisional Government took over in late 1955, various new measures were adopted which had as their purpose the freeing of marketing and prices of agricultural products from government control. It was hoped that this action would promote an increase in agricultural production and exports. In line with this policy, support prices for grains and oilseeds were increased substantially, and livestock prices to producers were raised. The government continued to subsidize the price of beef and wheat flour for the benefit of the consumer until February 1957, when a decree was passed freeing domestic prices on all types of meat sold, wholesale as well as retail, in the Federal Capital and the Greater Buenos Aires area. Compensation payments on meat for domestic consumption, except for those on steer meat, were also removed. Under new marketing arrangements in May 1957, however, official payments on steers were abolished but a compensation fund was established for use in maintaining the minimum price on steers whether for export or domestic consumption. The government hopes to gradually bring the official price of steers in line with the actual commercial value and eventually to decontrol cattle prices completely. The results of this action on the price of domestic meat are being closely watched to avoid runaway prices. Should this occur, legal measures for the protection of consumers will be taken. Later, in April, wheat flour and wheat byproducts, too, became no longer subject to minimum prices.

Another step to prevent sudden increases in domestic prices is the government's practice of retaining a certain percentage of the profits on exports. These retentions are based on the export prices (aforos) set by the government. This system of establishing aforos as practiced in Argentina is extremely important in the marketing of export products. The government can promote or discourage sales abroad through lowering or raising the aforo value. The raising, lowering, or removal of retentions also can aid or discourage sales.

In addition, steps have also been taken to liquidate IAPI. Most of its powers over agricultural commodities have been transferred to the National Institute of Grains and Elevators and the National Meat Institute. INGE has been responsible for grading, purchasing, storing, and delivering for export, cereals, oilseeds, and their byproducts; and the INC has carried out the same responsibilities for meat and meat byproducts. The Ministry of Commerce fixes the prices these institutes pay to the farmers and stock-raisers. Through these types of operations, most services of grain dealers have no longer been needed, and there has been little need of middlemen for livestock marketing.

By decree of May 11, 1956, however, a National Meat Board (Junta Nacional de Carne) was organized to replace the National Meat Institute. The Meat Board promotes livestock production and controls the marketing of livestock and meat. It also fosters exports. Although the board's powers are far-reaching, freer trade is possible under it than was permitted under the institute.

Also, in October of 1956, a National Grain Board (Junta Nacional de Granos) was organized to replace INGE. The new grain board is responsible to the Ministry of Agriculture and Livestock. It is an autonomous organization to supervise trade in grains and represents a step away from state trading and toward private trading, which is the announced goal of the new Government of Argentina. At about the same time that the National Grain Board was established, free trade in linseed, oats, barley, and rye was permitted. Dealers, brokers, millers, exporters, and cooperative associations are now free to buy the grains direct from the growers, provided that the prices they offer are not lower than the minimum prices set by the government. If private trade does not meet these minimum quotations, the board is to step in and buy the grain to maintain the floor price.

Oats, barley, rye, and linseed from the 1956-57 crop are to be quoted on the futures markets, which is also in line with the government's announced policy of gradual lessening of restrictions governing the grain trade. In addition, wheat has been opened to trading on the Grain Exchange and all wheat byproducts may be commercialized freely, though subject to existing *aforos*. The National Grain Board, however, will be kept in operation as long as the government maintains floor prices on some commodities and until there is complete "freedom of trade."

Climate and Soils

The climate and soils of the Argentine favor an economy based on agriculture. Most of the country lies in the South Temperate Zone, and generally moderate climate prevails, although there are some striking differences in temperature due to varying altitude. Seasons are the reverse of those in the United States: January is the warmest month and



June and July the coldest. About 31,000 square miles in northern Argentina, however, lie in the Torrid Zone, where it is hot and there is little wind. Rainfall and soil conditions vary greatly in different parts of the country, and a favorable combination of the two is restricted to about one-third of the total area of the country.

Except for the mountainous western border, Argentina's 1,079,985 square miles is a great plain, extending from the Atlantic coastline to the foothills of the Andes. Little farming takes place in the mountainous arid Andes, but grazing does support small numbers of cattle, goats, and sheep. The adaptability of the great plain to farming varies greatly from one part to the other. The three most important regions of the plain for livestock and/or grain and livestock farming are the Pampa—

or cereal and livestock zone—the Chaco, and Mesopotamia regions. Of these the Pampa is foremost as an agricultural region. The amount and seasonal distribution of its rainfall are one of its most distinctive features. Annual rainfall ranges from 40 inches on its eastern side to 18 inches on its western, even though this covers a distance of only 360 miles. There is danger of drought along the western border where rainfall is light and slight fluctuations often prove disastrous. Hot northern winds also occasionally have damaged crops. During the winter, frosts occur throughout the zone but the ground rarely freezes. This region contains soils among the best in the world.

The northern area of the Pampa has the best soils. They are dark, deep, and fertile. Annual rainfall there is from 30 to 40 inches. Most of the land is used for corn, flaxseed, and wheat. Alfalfa also does well. The eastern area of the Pampa contains a low-lying poorly drained district with tight subsoils and large acreages frequently flooded, but it also has some well-drained lands in the north. Rainfall ranges from 35 to 40 inches annually, and pastures are green throughout the year—capable of carrying large numbers of cattle. The southwestern Pampa area has lighter soils both in texture and color. They become progressively sandier and drier from east to west. A bed of limestone rock underlies this area, and the soils covering it vary in depth from 2 to 4½ feet, although frequently the rock appears on the surface. The soil is too shallow for alfalfa but is used for short pasture for sheep, and for grain. In its far-western part the sandy alkaline soils, supporting tufted grasses, the high winds, and the dry periods often cause pastures to dry up for many months of the year. Relatively long periods of frost and low temperatures prevail. The western area of the Pampa also has light sandy soils, and soil blowing is a problem on its extreme western edge where sand dunes dot the surface. Alfalfa does especially well in this area, however, and it has become highly specialized grazing land for fattening steers. Annual rainfall is from 24 to 34 inches making it too dry for corn, and the soils are too light to support continuous wheat farming.

North and northeast of the Pampa region lie the Chaco and Mesopotamia regions, both of importance for cattle.

The Argentine Chaco is composed of subtropical forest, flat swampy lowlands, and saline plains. The fertile alluvium found in the lowlands is suitable for cropping when drained. The soils on the higher lands are frequently of hardened clay, often saline. The mean annual temperature is about 73° F., and rainfall averages 16 inches. Precipitation is heavy in summer, but frequently winters are too dry. In the more humid eastern portion, many cattle thrive on the coarse semitropical grasses, but insects, disease, and winter drought hinder production. Cotton is produced in the southern part, and quebracho extract is gathered from the forests of the Chaco.

The Mesopotamia region borders on the Argentine Pampa to the south where annual rainfall is 40 inches. It has good pastures and crops in many districts. In its northern part are pastures and woodland, rolling and rough and poorly adapted to crops but devoted to native pastures. The mean annual temperature increases northward from 63° F. to 70°.

The portion of the great plain starting at the foot of the Andes and stretching eastward to the Pampa is the Arid Shrub region. Here, rainfall increases from about 4 inches in the west, near the Andes, to 18 inches in the east. The soil is sandy and gravelly. Pasturage is too poor for large numbers of cattle except on the eastern edge and a few restricted areas. Irrigated oases along the river valleys are highly productive, but little of the region has been irrigated. Various crops are grown on the oases, particularly grapes and sugarcane.

To the south of the Arid Shrub region is Patagonia. It covers an area of about 300,000 square miles, starting from a few miles north of the Río Negro to the southern extremity of the continent. The greater part is a vast desert plateau, crossed from east to west by deep broad valleys between high cliffs. Its sandy soil is whipped by constant strong winds from the west. The annual rainfall ranges from 6 to 12 inches. Annual average temperatures range from 43° F. in the south to 55° in the north. In general, this arid region is covered with only a thin shrub and plant growth. It is predominantly a sheep grazing country, supplying about half of the country's wool. The plateau of Patagonia is separated from the mountains by a sub-Andean trough, which, with its fertile soil and wooded sections, forms the choice part of Patagonia. Here and along the Río Negro and the lower Río Chubut lie the only extensive croplands of the region.

Even though much of the area of Argentina outside the Pampa region is not considered especially productive, there is probably no area anywhere in the world of the extent of the Pampa region with as small a percentage of wasteland and with more favorable climatic conditions for grain and meat production.

Land Use

Virtually all of Argentina's productive land is cropped or used for pasture. More intensive use could be made of that now in production, however, and some additional land could be made productive through irrigation and drainage. Improved transportation facilities would also help. The country's broad plains, climate and soils, natural grasses, and large land holdings have all combined to make grazing the dominant use of the land. According to the 1947 census, roughly 65 percent of the land used for livestock, crops, and forests—255 million acres—was in pastures, part of which was alfalfa and planted grasses. About 11 percent—43 million acres—was planted to annual crops, 5 percent—20

TABLE 11.—Major agricultural regions: Area, population, livestock, and crops in Argentina

ITEM	Unit	Total	Pampas	North	West	Patagonia and other	Percent in Pampas
Population, 1947:		Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
Total	Number	15,894	11,412	2,847	1,360	275	71.8
Rural	do.	5,962	3,137	1,866	777	182	52.6
Area	Square miles	1,083	316	261	239	267	29.2
Farms, 1947	Number	469	288	114	53	14	61.4
Livestock, 1952:							
Cattle	do.	45,263	34,779	9,026	1,198	260	76.8
Sheep	do.	54,684	26,643	6,260	2,338	19,443	48.7
Hogs	do.	3,989	3,422	456	81	30	85.8
Crop area planted, 1954-55:							
Wheat	Acres	14,670	14,605	10	43	12	99.6
Corn	do.	7,416	6,760	499	152	5	91.1
Oats	do.	3,400	3,324	44	26	6	97.7
Barley	do.	2,693	2,620	29	40	3	97.3
Rye	do.	6,160	5,968	39	151	2	96.9
Flax	do.	1,827	1,821	6			99.7
Sunflower	do.	1,381	1,360			21	98.5
Cotton	do.	1,438	125	1,311	1		8.7
Sugar cane	do.	736	37	696		3	5.0
Alfalfa	do.	18,701	17,972	292	329	108	96.1

Crop production, 1954-55:

Wheat	Bushels.....	282,554	282,128	22	309	95	99.8
Corn.....	do.....	100,230	93,262	6,032	799	138	93.0
Oats 1.....	do.....	45,000	44,918	.....	31	51	99.8
Barley.....	do.....	51,073	50,840	.....	204	29	99.5
Rye.....	do.....	33,231	32,855	.....	361	15	98.9
Flax seed.....	do.....	15,944	15,920	24	.....	.....	99.8
Sunflower seed.....	Short tons.....	3,117	3,098	.....	.....	19	99.4
Cotton.....	Bales.....	1,584	152	1,431	1	(2)	9.6
Sugarcane.....	Short tons.....	102,778	3,307	99,471	.....	.....	3.2

¹ Office estimate. ² Less than 500 bales.

Population and number of farms from Census of 1947.

Livestock numbers from livestock census of November 1952.

Crop area and production from Sintesis Estadística Mensual, August 1956.

million acres—in plantation crops, and the remainder in forests or mountainous terrain.

Pastures generally occupy well over half of the Pampa, in some parts over 90 percent, although the pattern is not rigid. Probably the principal reason pastures have retained such a hold on the Pampa region, in spite of its effective use for crops, is because of the ease with which alfalfa grows in much of the zone. Conditions in the Pampa now are such that crops and grazing are competitive, and comparative returns from the two determine the use of the land.

TABLE 12.—*Land utilization: Planted acreage, by crops in Argentina, average 1936–40, annual 1953 and 1955*¹

Crop	Average 1936–40	1953	1955
	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>
Wheat.....	18,663	15,037	14,670
Corn.....	15,956	8,288	7,416
Oats.....	3,567	4,206	3,400
Barley.....	1,903	2,738	2,693
Rye.....	2,511	6,135	6,160
Flaxseed.....	7,317	2,520	1,827
Sunflower seed.....	736	2,025	1,381
Cotton.....	1,000	1,396	1,438
Sugarcane.....	446	687	736
Alfalfa.....	13,322	17,554	18,701
Fruits, vineyard, and misc.....	2,900	3,484	5,036
Total.....	68,321	64,070	63,458

¹ Crop year ending in year shown.

Pastures have special importance in Argentina, not only because they are so extensive in area, but also because the cattle and sheep industries are almost exclusively grazing industries. Cattle are pastured throughout the country except in southern Patagonia, but the area of greatest concentration is on the Pampa and in Mesopotamia. Sheep are also distributed throughout the country, but the principal centers of production are Mesopotamia, the Pampa, and Patagonia.

Native and improved pastures are composed primarily of alfalfa and various species of ryegrass and brome grass and secondarily of Dallis grass, burclover, white clover, silver beardgrass, and carpet grass. Oats, rye, barley, and even corn are often grown as supplementary pastures. The major alfalfa region is somewhat larger than the corn belt but occupies about the same position. Furthermore, alfalfa is found extensively in the central and western portions of the wheat belt and in eastern San Luis Province.

The Argentine corn belt occupies an area of about 30,000 square miles and is the second largest (after the United States) in the Western Hemisphere. The area of most intensive cultivation forms a belt in northern and northwestern Buenos Aires Province, southern and southwestern Santa Fé Province, and eastern Córdoba Province, although corn is grown throughout a large part of the country.

The regions of greatest wheat concentrations are along the periphery of the corn belt in southern Buenos Aires and central Córdoba Province. Crop and livestock competition restrict the wheat acreage to a small percentage of the land area in a considerable part of the cereal belt, but in the leading wheat-producing districts to the northwest and southwest, the wheat acreage comprises 20 to 40 percent of the land area.

About 80 percent of the oat crop is grown in the central and southern parts of Buenos Aires Province, and the rest in the Provinces of Entre Ríos Córdoba, Santa Fé, and in the Territory of La Pampa.

Rye is cultivated in the region where the Provinces of Buenos Aires and Córdoba and La Pampa territory converge. It is also planted in the Andean valleys, the southern territories, and other areas too dry or too cool for corn and wheat.

TABLE 13.—*Principal field crops: Planted area in Argentina, crop year, averages 1891–1950 and annual 1951–57*¹

Year	Wheat	Corn	Oats, barley, and rye	Flaxseed, sunflower, and peanuts	Alfalfa	All crops
	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>
Average:						
1891–1900..	5,380	² 2,556	³ 56	⁴ 886	(⁵)	.....
1901–10....	11,992	5,711	641	2,977	7,436	.....
1911–20....	16,607	9,056	3,292	4,007	17,222	.....
1921–30....	18,289	9,868	4,443	6,046	16,550	.....
1931–40....	19,016	15,603	7,450	8,128	13,548	.....
1941–50....	15,736	9,734	10,334	8,525	15,258	.....
Annual:						
1951.....	16,195	6,027	10,871	7,008	17,339	57,440
1952.....	11,838	6,256	10,026	5,943	17,203	51,266
1953.....	15,037	8,288	13,079	4,996	17,554	58,954
1954.....	15,700	8,075	12,429	3,690	18,389	58,283
1955.....	14,670	7,416	12,253	3,596	18,701	56,636
1956 ⁶	12,874	7,133	13,044	5,619	719,000	⁷ 57,670
1957 ⁶	14,600	7,118	14,060	7,133	(⁵)	(⁵)

¹ Crop year ending in year shown.

² 3-year average.

³ Oats' acreage only; 3-year average.

⁴ Flaxseed acreage only; 3-year average.

⁵ Not available.

⁶ Preliminary.

⁷ Office estimate.

The area devoted to flaxseed coincides with the region of most intensive corn cultivation. In fact, flax offers considerable competition for corn. Entre Ríos and northern Buenos Aires Provinces are the principal flaxseed centers. The rest of Buenos Aires Province and Córdoba Province are marginal producing zones.

Sunflower acreage has increased greatly since 1935-36, affecting the use of the land for the other crops. A considerable part of the sunflower sowings, however, follow wheat in the same year, representing double cropping.

It is difficult to determine the total acreage in crops in Argentina because of the double cropping, but the distribution was about as shown in table 13.

Thus, the combined area in the three leading export crops—corn, wheat, and flaxseed—fell from approximately 42 million acres in 1936-40 to an estimated 24 million acres in 1954-55. Land diverted from these crops has gone largely into alfalfa for beef and dairy cattle, sunflower seed, and to a less extent into cotton and sugarcane. The land in these principal export crops then is certainly under the maximum potential in terms of tillable land. It has been estimated that 10 percent of the grazing area is suitable for cultivation, but expansion to an area of this size would involve a major contraction of the grazing industry. That, however, could probably be made up at least in part by more intensive use of the grassland.

Farming Practices

Since Argentina's Pampa has such excellent cropland, part of the overall lag in production and exports of crops and livestock products from Argentina since the prewar years must be attributed to its farming practices.

One important impediment to progress has come from the system of land tenure. According to the 1937 census, 50 percent of the land in the Pampa was in 3 percent of the holdings—those above 3,100 acres each. Relatively few of these have been subdivided since. These large holdings, or *estancias*, were organized to produce cattle by extensive methods on cheap land and, partly because of their size, have not readily responded to technological and economic change. The high level of income of *estancia* owners, at least up to World War II, led to neglect in care of the land. During the years of high income, many an owner turns his property over to the direction of hired managers so he could travel abroad. While there are many good farm managers in Argentina, this is not true of all of them, of course.

In recent decades, share-crop tenants, or *colonos*, have been working portions of most of these *estancias*, to grow corn and small grains. Usually but little attention has been given to the methods they use. In addition, the managers of the *estancias* have been trying to get along

with as few workers and tenants as possible since the passage of more stringent laws for the protection of tenants and farm laborers. This has resulted in less intensive care of the land. It appears that the land tenure system as a whole has the inevitable vices of absentee operation.

Evidences that Argentina has lagged behind the United States and many other countries in agricultural technology are the relatively low yields of corn and greater growth of weeds.

Corn yields have declined significantly in Argentina and advanced substantially in the United States. Argentina may lose its position as a lower-cost producer than the United States unless it can soon successfully introduce improvements in seed stocks or other technological and scientific improvements on a wide scale.

As for weeds, many varieties infest Argentine pastures, but the two most evident and probably the most destructive are the milk thistle (*Silybum marianum*) and musk thistle (*Carduus nutans*). Some attempt has been made to combat these and other thistles by plowing and using pastures for crops. But because of the size of the estancias, weed control represents a big item of labor which frequently discourages control. The number of estancias that use modern methods to keep weeds out of pastures seems to have decreased in the last couple of decades. And, although the area in pastures has been increasing, their usefulness has been offset to some extent by the spread of weeds. In fact, some pasture specialists report that weed control and other good pasture practices would probably increase the carrying capacity of Argentine pastures by 30 to 50 percent. With the available tracts of comparatively good pasture land that could be improved and utilized, cattle herds could be increased greatly in a comparatively short time.

Another factor that has led to declining productivity in Argentina is the lack of replacement of plant food taken out of the soil by cropping. Application of fertilizer or lime to field crops is rare. Until recently, it probably was not needed greatly, and most farmers still believe that it does not pay to fertilize crops.

Fertilizer consumption in Argentina in 1956 is reported as 9,848 short tons of nitrogen, 12,109 tons of phosphoric acid, and 2,921 of potash (K_2O). Nearly all of this has gone to sugarcane, vegetables, fruit crops, and tobacco. Relatively large quantities of organic fertilizers are produced in Argentina, largely as a byproduct in slaughterhouses, but much of this is exported. The only chemical fertilizer produced is superphosphate—production in 1956 is reported as 11,000 short tons of P_2O_5 . Argentina, therefore, must depend upon imports for most of its chemical fertilizers. Generally, approximately one-half to two-thirds of the chemical-fertilizer materials utilized is sold unmixed for direct use. The balance is marketed in mixtures of nitrates, phosphates, and potash, with oilseed meals, slaughterhouse byproducts, and fish meal often used as fillers.

Apparently only limited studies have been made as to the effect of fertilizers on total crop production in Argentina, but larger sales of fertilizers in the zones of intensive cultivation indicate that increased output thus far has been sufficiently remunerative to encourage their continued use. The principal factor influencing the use of fertilizer is, of course, the relation between the sale price of the crop and the cost price of the fertilizer. As yet there is little shortage of arable land, and preference is given to the rotation system. If favorable crop prices and ready markets can be maintained in the next few years, the quantities of fertilizer used probably will gradually increase. Additional knowledge is still needed, however, on the type and quantity of fertilizers needed for most economic production.

TABLE 14.—*Tractors: Number in use, by size of farm, in Argentina, 1956*

Size of farm <i>Hectares</i> ¹	Tractors	
	<i>Number</i>	<i>Percent of total</i>
Up to 5.....	468	0.8
6 – 50.....	5,410	9.4
51 – 100.....	6,837	11.8
101 – 200.....	11,028	19.1
201 – 400.....	11,299	19.6
401 – 800.....	7,843	13.6
801 – 1,500.....	4,913	8.5
1,501 – 3,000.....	3,907	6.8
3,001 – 6,000.....	2,965	5.1
6,001 – 10,000.....	1,335	2.3
Over 10,000.....	1,795	3.0
Total.....	57,800	100.0

¹ 1 hectare = 2.471 acres.

Fiat Someca: *La Industria del Tractor en la Argentina*.
National Censuses and estimates.

Strict government control over most imports of agricultural equipment and high prices during the past decade may have been responsible in part for the decline in agricultural production. Practically all grain farms in Argentina, however, are mechanized to a certain degree, with combines in general use for harvesting. But on the basis of 1 tractor for every 500 acres, it is estimated that the country would require 140,000 tractors, as compared with approximately 58,000 in the country in June 1956, together with the complementary machinery and equipment in order fully to mechanize its agriculture. Now, most tractors are used on farms of between 250 and 1,000 acres. The larger farms are more generally used for livestock raising.

Most farm power in Argentina is still supplied by horses; reports

indicate that only 8 percent of the area under cultivation was operated by tractor power in 1950. Argentine farmers use horses because they are numerous and, owing to the mild climate, need no shelter and require little feed other than pasturage. Tractors and their fuel, on the other hand, must be imported and cost about double the price paid by United States farmers.

Most farm implements made in Argentina are built for animal traction, although some may now be purchased with tractor hitches. The task of fully mechanizing Argentine agriculture, according to farm experts, is expected to be a slow and costly one. A shift to tractor-drawn equipment, however, could greatly extend the area cultivated by an individual owner, and new and more equipment and repairs would help to offset the movement of farm labor to the cities. In order to appreciably increase acreage and output of grains and other agricultural products, therefore, a substantial increase in machinery imports is needed, although more locally made equipment and machinery is becoming available.

If Argentina's agricultural land were farmed more intensively, the results might be interesting, for its fertility is little appreciated. How much more future production might be with the overall application of modern farm practices can best be gaged by reviewing production as it is with the relatively low efficiency in land use.

Production Trends

Except for sugar, cotton, and fruit, Argentina's agriculture is virtually coextensive with the Pampa. It lies in a semicircle around Buenos Aires, with a radius of about 300 miles, and covers about a fourth of the country. It approximates the combined area of Illinois, Minnesota, Iowa, and Missouri. Half of the country's sheep, three-fourths of the cattle, and five-sixths of the hogs are raised in the Pampa area. It also produces 95 to almost 100 percent of the corn, flax, and small grains.

From an agricultural and economic point of view Argentina is a very young country. As recently as 1900 the Pampa was used for little except pasture. During the past century, however, both Argentina and the United States have accelerated their agricultural development. In the past half century, in particular, development in both crops and livestock has been very rapid.

Field Crops

Grain and oilseed production advanced rapidly in Argentina in the first 20 years of the century, then slowed during World War I and the depression that followed in 1920. For the next couple of decades, production expanded again, with redoubled vigor. In the late 1930's, however, the trends changed sharply, becoming more marked after the outbreak of World War II. Argentine farmers began shifting from crops

TABLE 15.—*Principal field crops: Production in Argentina, crop years, averages 1891–1950, and annual 1951–57*¹

Year	Wheat	Corn	Oats, barley, and rye	Flaxseed
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>Short tons</i>	<i>1,000 bushels</i>
Average:				
1891–1900.....	60,700	² 70,240	³ 23	⁴ 8,865
1901–10.....	128,586	140,275	234	29,241
1911–20.....	165,860	198,222	912	31,194
1921–30.....	219,707	253,285	1,367	61,366
1931–40.....	232,850	320,553	1,790	66,959
1941–50.....	214,169	207,068	1,865	43,445
Annual:				
1951.....	212,962	105,712	2,345	22,015
1952.....	77,160	80,310	1,749	12,338
1953.....	280,496	139,756	4,165	23,003
1954.....	227,807	175,187	2,747	16,141
1955.....	282,554	100,230	2,876	15,944
1956 ⁵	192,900	152,350	2,566	9,370
1957 ⁵	262,000	115,000	3,820	23,620

¹ Crop year ending in year shown.

² 5-year average.

³ 3-year average, oats only.

⁴ Year 1899–1900.

⁵ Preliminary.

to livestock—a shift that picked up speed in 1946 as government industrialization policies drew labor and capital away from agriculture and prevented the importation of necessary farm implements and supplies for arable farming. Now that policies are more favorable to crops, some grazing land is again being cultivated. But the present acreage in the six principal crops—wheat, corn, oats, barley, rye, and flaxseed—is only about 35 million. That can be increased at least up to the 52 million cultivated in 1935.

Crop Yields

The newcomer to Argentina is sure to be amazed at the low crop yields, in comparison with those in the United States. Although the soils of the Pampa are deep and apparently productive, wheat averaged only about 13 bushels per acre planted or 17 bushels harvested during the 1940's, while corn yielded 20 bushels per acre planted or 30 bushels harvested. The corresponding figures for flaxseed were 8.8 and 10.3.

Grain yields fluctuate widely in Argentina from year to year as well as from region to region for several reasons. Rainfall varies markedly from area to area. Too, it varies more from month to month than it does in the United States, for instance. Also, insect damage is sometimes high, and weed growth is abundant in damp years and is not closely

PRINCIPAL AGRICULTURAL FIELD CROPS, 1900-01 – 1956-57

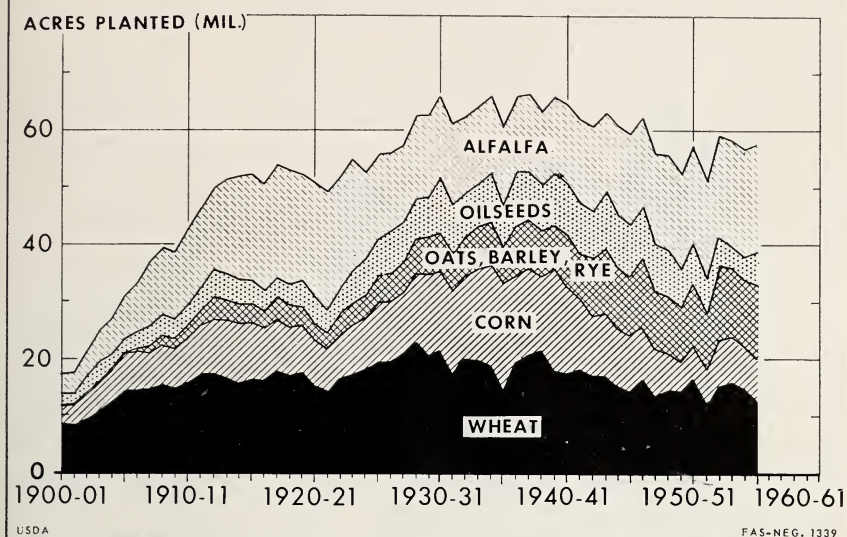


TABLE 16.—Wheat, corn, and flaxseed: Yield per planted and harvested acre, in Argentina, crop year averages 1890–1950, annual 1951–57¹

Year	Wheat		Corn		Flaxseed	
	Per acre planted	Per acre harvested	Per acre planted	Per acre harvested	Per acre planted	Per acre harvested
Average:	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
1890–1900.....	11.8	(2)	³ 27.5	(2)	(2)	(2)
1900–10.....	10.7	(2)	26.0	(2)	9.9	(2)
1910–20.....	10.0	11.0	21.8	22.1	7.9	9.2
1920–30.....	12.1	12.9	25.7	29.3	10.3	11.1
1930–40.....	12.3	13.9	20.6	29.5	8.9	10.5
1940–50.....	13.6	17.0	21.1	30.4	8.7	10.7
Annual:						
1951.....	13.1	16.4	17.5	24.8	8.2	10.5
1952.....	6.5	11.4	12.8	22.7	7.8	11.1
1953.....	18.7	20.3	16.9	23.6	9.1	10.7
1954.....	14.5	18.5	21.7	29.4	8.9	11.8
1955.....	19.3	20.9	13.5	21.8	8.7	10.2
1956 ⁴	15.0	19.2	21.4	27.5	5.6	8.5
1957 ⁴	17.9	19.7	.....	.....	8.0	7.3

¹ Crop year ending in year shown.

² Not available.

³ 5-year period.

⁴ Preliminary.

controlled. Consequently, the unharvested area is often high. During the war years, high wheat acreage abandonment was due in large part to other factors—the low price for wheat and the lack of shipping facilities and normal market outlets, for example. After the war, the government's price and export policies, along with the shortage of farm labor and equipment, were no doubt important in the 18 percent abandonment during the 1945–49 period. Small grains, especially oats, barley, and rye, customarily used for winter pasture, may often not be worth harvesting if the season is dry and the grass poor. Even with corn, abandonment of 20 to 30 percent is not uncommon. Another reason for the pronounced decline in corn yields per acre since the 1920's is that no fertilizer is applied to Argentine field crops.

Corn is drilled thickly in rows 24 to 30 inches apart. After it comes up, it is harrowed once or twice, and then cultivated two or three times. The standard corn varieties, however, form smaller plants than those of the United States Corn Belt. The soil is heavily infested with weed seeds and grass, which grow rapidly after the second cultivation. By the time the crop is ready for harvesting, the ground is usually covered with a dense growth of grass and weeds.

Of late years it has become more and more difficult to find men willing to harvest corn by hand under these conditions. Mechanical corn pickers are coming into wider use. Those built in the United States, however, are for 40- to 42-inch rows rather than for 24- to 30-inch ones. In addition, there is often difficulty in operating the machine because of the thick growth of weeds.

Lately the use of hybrid seed corn has begun to spread, and 5 or 6 percent of the crop was planted with such seed in 1953–54. The hybrids are still being improved for Argentine conditions, but already offer a potential yield advantage of 20 to 30 percent over local open-pollinated varieties.

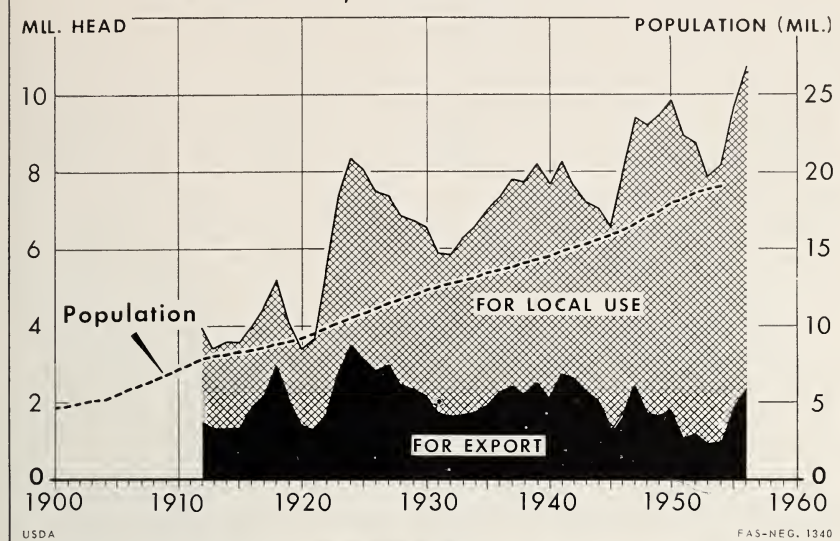
Yields of wheat and flax have not been decreasing. This may be because varieties are better and weed infestation is less serious at the season when small grains are making their greatest growth. The general level of yield of small grains, however, has been low.

Livestock and Products

Most of Argentina's cattle are found in the Pampa, where the land is level and fertile, climate mild, and rainfall generally plentiful. This region had about three-quarters of the cattle in 1952. About half the sheep are in the Pampa and about a third in the desert region of Patagonia. Sheep numbers have declined over the past half century because of a shift to crops and cattle raising.

Argentina is outstanding in its production of beef, mutton, and wool. The year 1900 marked the beginning of artificial refrigeration's use in some volume for ocean shipments of beef to European markets. Since

ARGENTINA: CATTLE SLAUGHTER - TOTAL, FOR EXPORT, AND FOR LOCAL USE



then, Argentine meat production, both in quantity and quality, has been tailored to the European market. To meet these standards, estancieros early began to import the finest Shorthorn, Hereford, and Angus stock that they could find and made the breeding of beef animals a fine art. In addition, they improved pastures by planting alfalfa, which yields three to four crops a year without irrigation.

During World War I, cattle slaughter in Argentina averaged about 4 million head per year. By 1937 it had doubled and, in 1957, it is expected to exceed the 11.7 million of 1956. Slaughter of sheep has increased from decade to decade, too, until 1950. From 1940 to 1950, it was 13 million or 14 million a year.

Hogs have never been important in Argentine agriculture or foreign trade, partly because it has been difficult to develop foreign markets for pork. During World War II, however, shipping space was not available for feed grains, and more corn than usual was converted into pork for 3 or 4 years. With the end of the war, demand for corn in Europe jumped and grain prices increased. It then was no longer profitable to feed hogs, and numbers dropped sharply. But in 1956 they were up again—to 3.9 million.

The shift to beef cattle production in Argentina since the end of World War II implies a shift in the use of resources, and could have occurred only because of changed incentives to farmers. Since beef cattle in Argentina are produced almost entirely on pasture, the growth in numbers means that land has been shifted from crops to pasture.

TABLE 17.—*Livestock: Slaughter in Argentina, averages 1921–50, annual 1951–56*

Year	Cattle		
	Export	Local use	Total
Average:	<i>1,000 head</i>	<i>1,000 head</i>	<i>1,000 head</i>
1921–30	2,500	4,281	6,781
1931–40	2,045	5,005	7,049
1941–50	2,037	6,241	8,278
Annual:			
1951	1,085	7,893	8,978
1952	1,193	7,593	8,786
1953 ¹	927	6,969	7,896
1954 ¹	973	7,160	8,133
1955 ¹	1,791	8,212	10,004
1956 ¹	2,600	9,100	11,700
Sheep			
Average:			
1921–30	4,294	4,397	8,691
1931–40	4,089	6,383	10,472
1941–50	6,799	7,142	13,941
Annual:			
1951	1,595	6,429	8,024
1952	3,588	6,381	9,970
1953 ¹	3,657	6,513	10,169
1954 ¹	3,990	7,116	11,106
1955 ¹	4,307	6,266	10,573
1956 ¹	3,700	6,500	10,200
Hogs			
Average:			
1921–30	145	836	980
1931–40	321	1,494	1,815
1941–50	912	2,299	3,211
Annual:			
1951	173	1,540	1,713
1952	145	1,578	1,722
1953 ¹	263	1,729	1,991
1954 ¹	263	1,762	2,025
1955 ¹	146	1,867	2,013
1956 ¹	400	2,000	2,400

¹ Preliminary.

The relative advantage of grain crops over pasture in Argentina is much narrower than in the United States. Consequently, the point of equilibrium can be shifted by smaller changes in price or technology.

From the early 1940's the general Argentine price level has climbed continuously. Even though prices of cattle have not risen quite as fast as those for grains, there has been a year-to-year gain in the value of cattle on hand. Another and probably stronger influence leading to a reduction in crops and an increase in cattle has been a growing scarcity of farm labor. During recent years, workers have been drifting toward higher paying jobs and pleasanter living conditions in the cities. Furthermore, the government's efforts to extend legal protection and social security to rural workers made the management of farm labor more difficult. These factors favored the cattle industry, permitting large areas of land to be utilized as pasture, with relatively little labor.

Production of more cattle should normally have led to the slaughter and export of more beef. But for some years cattle prices were not high enough to interest the farmers in sending their cattle to market, and they continued to hold back cows and heifers for the expansion of their herds. By late 1955 slightly higher prices to producers and a change in government policy encouraged larger marketings. Slaughter in 1956 was one of the largest on record.

At the same time, the marketing of sheep is declining, as a result of the good wool market locally and abroad.

For years, Argentina has been one of the principal wool-producing countries of the world, and in the 19th century its leading export product was wool. Back in 1899, wool production was over 500 million pounds annually. Since then it has declined. Grain farmers gradually forced the sheep raisers out of most of the central area into the undeveloped land in the north, west, and south. Also unfavorable exchange rates for wool exports during the later years were partly responsible for declines in wool production. Argentina now holds third place as a world producer of wool.

However, the recently established *aforo* system, which fixes prices based on world markets for wool, in combination with the devaluation of the exchange rate, has given incentive to Argentine sheep breeders. More lambs are being kept to increase sheep stock. This led in 1956 to a wool clip of an estimated 386 million pounds, which is up from the previous 2 years but still about 10 million pounds below prewar.

Dairying

With the increase in population in the country, there has been a gradual shift toward more intensive farm enterprises, including dairy and poultry production.

Dairy production dropped slightly in 1951 and 1952 because of droughts, but recovered to record levels with the good pasture season of

the following years. And, with the long Argentine pasture season and the advantages of further farm diversification, prospects are for continued increase in dairying for some years in the future.

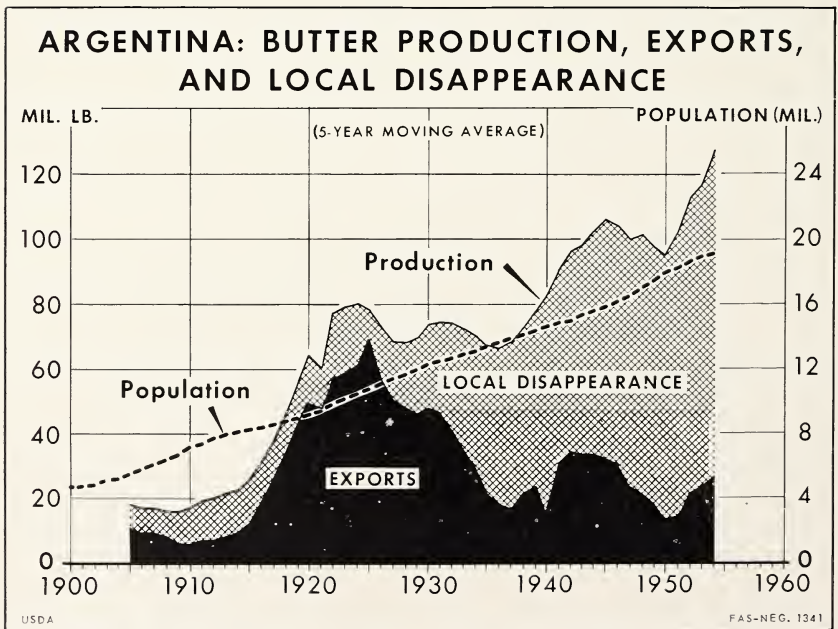
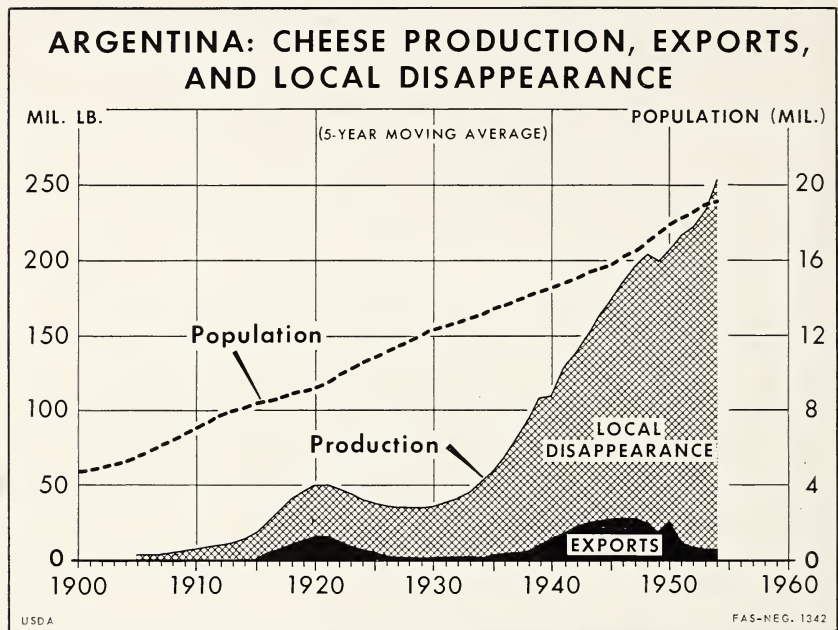


TABLE 18.—*Butter, cheese, and casein: Production, exports and consumption, in Argentina, averages 1910-54, annual 1955 and 1956*

Year	Butter				Cheese
	Production	Exports	Percent exported	Estimated ¹ consumption	Production
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Percent</i>	<i>Million pounds</i>	<i>Million pounds</i>
Average:					
1910-19.....	29	17	58.6	12	22
1920-29.....	73	53	72.6	20	41
1930-39.....	71	30	42.2	41	61
1940-49.....	98	28	28.6	70	168
1950-54.....	112	21	18.7	91	221
Annual:					
1955.....	126	28	22.2	98	285
1956.....	145	34	23.4	111	279
	Cheese - Continued			Casein	
	Exports	Percent exported	Estimated ¹ consumption	Production	Exports
	<i>Million pounds</i>	<i>Percent</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Average:					
1910-19.....	4	18.1	18	11	9
1920-29.....	6	14.6	35	31	31
1930-39.....	3	4.9	58	42	39
1940-49.....	25	14.8	143	62	62
1950-54.....	8	3.6	213	70	62
Annual:					
1955.....	7	2.4	278	77	84
1956.....	7	2.5	262	90	68

¹ Production minus exports.

Export Trends

A review of the trends in exports from Argentina reveals the competition the United States has been facing from that country over the years, and indicates future prospects.

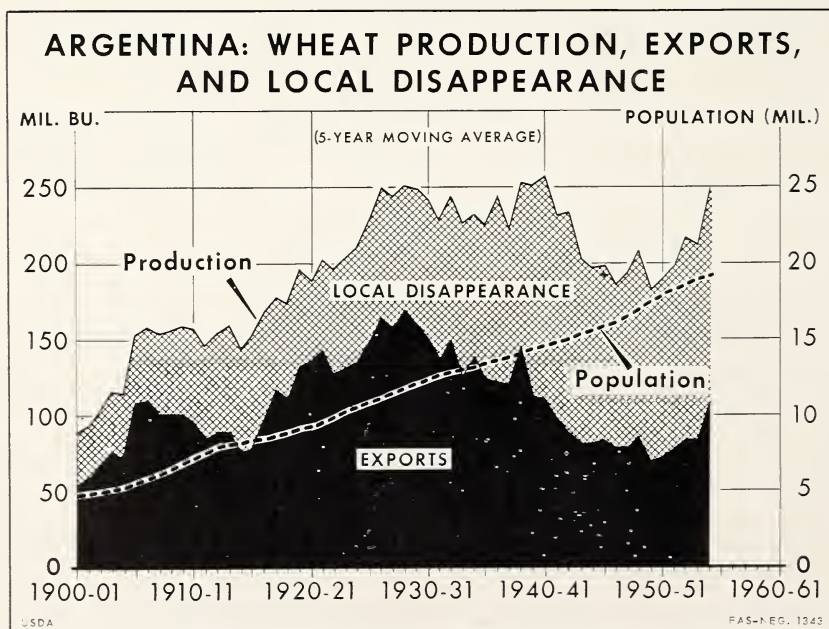
Even prior to World War I Argentine farm production surpassed domestic demand, making that country one of the world's most important exporters of agricultural products. During the war and after, its exports increased, reaching a peak in 1928. They dropped during the world depression, and did not gain substantially until the late 1930's.

Again, during and following World War II, Argentina's exports of farm products (valued at 1935-39 prices) declined drastically. In 1943, they were only 57 percent of the prewar period, partly because of

adverse weather but mostly because of a shortage in shipping space.

During the postwar period, the best year was 1947, when exports climbed back to 87 percent of prewar in response to pent-up demand abroad for Argentina's grains, oilseeds, wool, and meat. These products commanded high prices on the export market, and the Argentine Government made money on its farm exports, for in 1946 it took over the marketing of agricultural products through its official trading agency IAPI. These products, however, were purchased by IAPI from the producers at low prices, which resulted in farmer dissatisfaction with government handling of agricultural surpluses. This, coupled with an increasing domestic consumption, served to accentuate the downward trend in production for export. The decline was further accelerated by the government's efforts to industrialize the country at the expense of agriculture.

The year 1949 marked the end of boom conditions in the export field. The volume of exports in 1951 was down to one-half of prewar, and in 1952 was at the lowest level in 20 years—only 39 percent of prewar. The droughts of those 2 years were partly responsible for the low exports. In 1953 and 1954 there was some recovery in the trade slump. Exports climbed back to 70 percent of prewar in 1954, but slipped back to 60 percent in 1955. Wheat exports held up well in 1955; but Argentina had a poor corn crop, and flaxseed and oil exports fell off sharply, too. The trend was upward again for 1956, 68 percent of prewar, and indications for 1957 are somewhat more optimistic.



Grains and Oilseeds

The first 35 years of the century saw a tremendous growth in Argentina's grain trade. From half to three-quarters of the wheat and corn crops were exported, and virtually all the flaxseed except that needed for sowing.

TABLE 19.—*Cereals: Total exports and percent of production exported of five cereals, from Argentina, averages 1901–50, annual 1951–56*

Year	Total 5 cereals	Wheat (including flour)	Corn	Oats, barley, and rye
	<i>1,000 short tons</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Average:				
1901–10.....	4,553	65	57	56
1911–20.....	6,359	62	57	73
1921–30.....	10,310	65	70	55
1931–40.....	11,723	58	76	55
1941–50.....	4,536	39	22	32
Annual:				
1951.....	4,669	43	17	22
1952.....	3,591	3	24	16
1953.....	1,078	33	17	29
1954.....	5,163	48	26	88
1955 ¹	8,120	47	79	35
1956 ¹	5,361	48	7	43

¹ Preliminary.

TABLE 20.—*Cereals: Exports from Argentina, averages 1901–50, annual 1951–56*

Year	Wheat and flour	Corn ¹	Oats, barley, and rye
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 short tons</i>
Average:			
1901–10.....	83,754	80,430	131
1911–20.....	102,159	114,296	664
1921–30.....	142,453	178,438	759
1931–40.....	134,809	244,699	478
1941–50.....	83,076	46,468	590
Annual:			
1951.....	91,382	18,272	519
1952.....	2,378	19,416	288
1953.....	92,615	24,122	1,191
1954.....	110,094	45,024	2,409
1955 ²	131,680	79,201	998
1956 ²	93,430	10,294	1,110

¹ Marketing year ending Mar. 30 for years 1931–56.

² Preliminary.

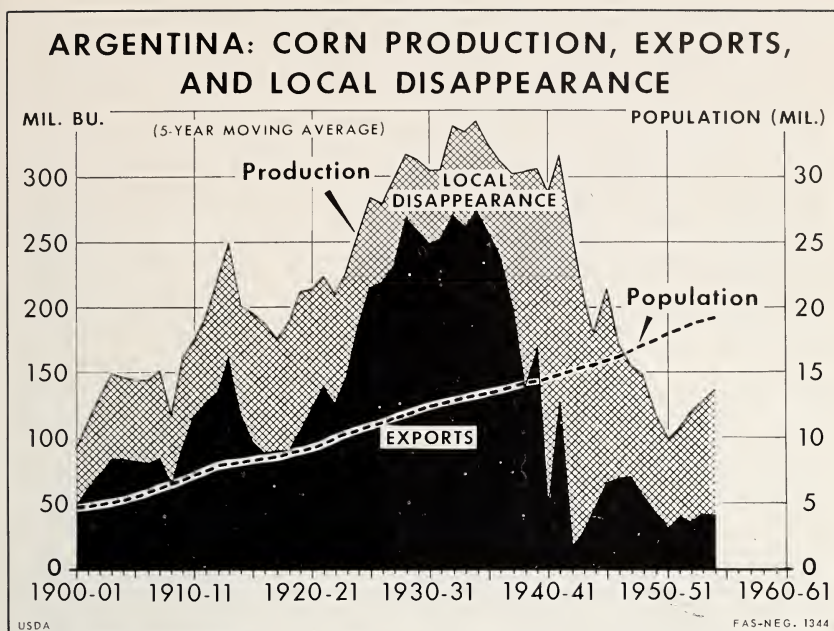
TABLE 21.—*Flaxseed and vegetable oils: Exports from Argentina, averages 1901–50, annual 1951–56*

Year	Flaxseed	Linseed oil	Sunflower oil	Peanut oil
	<i>1,000 bushels</i>	<i>1,000 short tons</i>	<i>1,000 short tons</i>	<i>1,000 short tons</i>
Average				
1901–10.....	26,214	(¹)	.....	.....
1911–20.....	27,012	1	.....	(¹)
1921–30.....	54,907	(¹)	.....	(¹)
1931–40.....	58,826	1	.....	(¹)
1941–50.....	8,711	142	56	4
Annual:				
1951.....	7,125	284	91	.....
1952.....	1,017	30	10	.....
1953.....	390	124	22	4
1954.....	436	270	3	1
1955.....	.....	166	.....	.....
1956.....	.....	² 78	.....	.....

¹ Less than 500 short tons.² Preliminary.

Beginning in the late 1930's or early 1940's, and becoming more marked after the outbreak of World War II, exports fell sharply, with the growth of population and of domestic demand coupled with the production decline. Sudden readjustments in trade were forced by the war, and Argentine agriculture seemed to shift its general direction of development at about 1940. But basic conditions for most of the new trends were already present. During the war, high ocean freight rates and difficulty in obtaining shipping space restricted or prevented exports of feed grains, which have a relatively low specific value. Total cereal exports fell off, too—from 12 million short tons to 4 million during the war. They recovered slightly thereafter, and then dropped even lower after the droughts of 1951 and 1952.

The flaxseed export picture changed too, but for a different reason. Flaxseed is produced in Argentina primarily as an export crop and constituted one of the principal items of foreign trade from 1900 to 1940. During the next 10 years, flaxseed exports virtually disappeared. Part of the decline resulted from the loss of the United States market when production rose here. Most of it, however, represented a shift in form of commodity. With the beginning of Argentine industrialization, encouragement was given to the construction of oil mills and exportation of linseed oil rather than seed. The new industry also made available a large amount of oilseed meal and cake, which partly compensated for the decline in export of seed.



Livestock Products

Over half the value of Argentine exports during the past 5 years has consisted of meats or other animal products. Prior to 1900 wool and mutton exports were much more important than beef, but their positions were reversed between 1900 and 1910 with the development of beef exports to England. During World War I about half of the cattle slaughtered were for export but by 1935 only 30 percent were exported, in spite of the fact that the number slaughtered in 1935 was about double that of the earlier years. With continued growth of population, the proportion continued to shrink.

Chilled or frozen beef shipments fell, too, from over a billion pounds in the late 20's to something over half a million in the late 40's. After 1950, exports were even smaller because of drought and the resulting decline in production. The year 1956, however, again witnessed an upward trend in beef exports. Larger herds, favorable prices, and export exchange rates are responsible. Prospects are for larger exportable supplies in 1957.

Mutton exports, averaging one year with another, have run from around 115 million to 225 million pounds a year. Pork is not important as an export, but shipments average about 45 million pounds per year.

Exports of cattle hides have been well maintained throughout the last half century. Wool exports ran high during the late 1940's, declined after 1953, but are up again.

TABLE 22.—*Meat, chilled, frozen, and canned: Exports from Argentina, by kind, averages 1900–49, annual 1950–56*

Year	Beef ^{1 5}	Mutton ^{1 5}	Pork ^{1 5}	Canned meat ²
Average:	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
1900–09.....	255.6	160.3	(³)	5
1910–19.....	821.5	125.5	2	124
1920–29.....	1,213.2	169.4	11	123
1930–39.....	921.0	132.4	19	143
1940–49.....	670.6	199.6	89	203
Annual:				
1950.....	392.7	92.6	38	163
1951.....	248.1	54.8	31	216
1952.....	212.0	98.7	15	124
1953.....	246.4	111.6	31	129
1954.....	226.1	127.8	37	162
1955 ⁴	421.5	157.3	9	193
1956 ⁴	802.1	120.3	53	163

¹ Includes chilled, frozen, boneless, bone in, actual weight only.

² Actual weight; does not include canned tongue or chicken.

³ Less than 500,000 pounds.

⁴ Preliminary.

⁵ For 1950–56: Republica Argentina, Junta Nacional de Carne, 1956.

Exports of dairy products have fluctuated widely from year to year but have risen by significant amounts from decade to decade. Butter exports 1905–09 averaged about 9 million pounds and by 1945–49 they had increased to 23 million. Argentina was a net importer of cheese in the early years but by the late 1940's an average of 27 million pounds were exported. These decreased to 7 million in 1956. Casein exports have increased steadily along with production.

All livestock products gave way to the grains as the leading export category during the prewar years, but are again taking the lead.

Prospects

Although Argentina's competition in the world market for agricultural products has been declining, basically the traditional strength of the country's agriculture continues evident. Livestock numbers have been maintained at high levels, production of cotton, edible oils, and tobacco has shown an upward trend, and the reduction of cereal plantings has come more from the diversion of income away from producers than from a decline in the productive capacity of the land. Therefore, if Argentina's agriculture is given the required assistance over the long pull, it may regain its former competitive position.

In the meantime, Argentina is faced with some difficult problems. Agriculture provides virtually all of its foreign exchange, and the decline

TABLE 23.—*Wool and cattle hides: Exports from Argentina, averages 1900–49, annual 1950–55*

Year	Wool ¹	Cattle hides ²
	<i>Million pounds</i>	<i>Million pounds</i>
Average:		
1900–09.....	398	133
1910–19.....	316	211
1920–29.....	309	314
1930–39.....	302	290
1940–49.....	308	275
Annual:		
1950.....	313	450
1951.....	130	243
1952.....	234	331
1953.....	342	266
1954.....	³ 215	274
1955.....	³ 240	317

¹ Actual weight.

² Dried and salted.

³ Revised totals: 1954, 210; 1955, 231.

in exports in recent years has reduced the country's ability to obtain foreign equipment and materials that it does not produce domestically. Its supply of fuels is inadequate, and there is a scarcity of known deposits of minerals. In addition, the population is growing by some 2 percent per year. Unless its agricultural output can be expanded enough to provide the exchange necessary, the scarcity of imported goods will become more and more acute.

The government has already supplied some price incentives to export products, and the response has been significant. Over the longer pull, however, there are other prospects for Argentina to increase its export availabilities. For example, the application of more resources to agricultural development, the reorganization of the less-efficient segments of agriculture, or the improvement of farm technology should be effective.

At present, land and labor are the most abundant of the available resources, but, unless conditions for acquisition and operation of family-sized farms are made more attractive, the population will continue to drift to the city. Greater application of farm labor in Argentina needed to develop its land resources will probably have to come chiefly from natural increase among tenants and small landowners. Availability of land to expand output has already been demonstrated.

A reorganization of the less-efficient segments of agriculture will come slowly. The large estancias of Argentina are having the greatest difficulty in adjusting to technical and economic requirements of the present day. But reorganization of the estancias is not an easy matter. In the

first place, a forced subdivision of estancias into small farms, or too rapid a reorganization, would probably lead to a virtual disappearance of the exportable surplus, at least in the early years. There are too few competent farm operators to take over the management of a large number of new farms and, furthermore, a period of years is needed to organize an efficient new farm unit.

The third method of increasing export availabilities is to improve farm technology. This alternative contains more promise for the near future than do the first two. The Provisional Government sees the need for technical advancement in agriculture, and recently established a National Institute of Agricultural and Livestock Technology to promote and coordinate agricultural and livestock research and improve rural activity. Such an institute might well spearhead improved production methods so that Argentina's agricultural products could become more competitive with those of other exporting countries.

Argentina does have an agricultural extension service that contains some capable men, but trained personnel and available resources are small. Thus, it has not yet been able to give as much technological assistance or economic guidance as might be desired.

However, many progressive farmers are searching for improved methods themselves. Some of these are estancieros and some are operators of medium- or small-sized farms. This group has developed many interesting and highly efficient techniques, which are gradually spreading to neighbors. Other landowners, especially absentee landowners, employ professional farm advisers to give technical advice and a certain amount of supervision in the operation of their estancias.

Still another source of farm improvement is found in some commercial organizations that are producing or marketing up-to-date equipment. They develop and sell hybrid seed corn adapted to Argentine conditions; make or import fertilizers, insecticides, fungicides, or weed killers; and educate farmers to use these products.

In addition, some spontaneous improvement of Argentine agriculture is already occurring, and farmers are improving their farm organizations and practices. Gradual diversification is under way, especially on the smaller farms—milk cows, hogs, and chickens are being added to use labor or available feed more fully.

But any quantity of farm products that Argentina has to sell on the world market is bound to face increasing competition. Farm wages are rising in Argentina and cutting down some of the country's competitive advantage. Too, world production of those commodities that Argentina exports is ever increasing, and the possibility of favorable prices is less certain.

Looking ahead, however, it is evident that even though Argentina has many difficult problems to solve, and future progress will not be easy, it does have tremendous possibilities in that its cropland repre-

sents one of the world's largest areas of good land, not too distant from ocean transportation, that only awaits opportunity for improvement.

Argentina has been an important competitor of the United States in the world market for agricultural products, and there is no apparent reason why it will not continue to be for a long time. Development in the next couple of decades will be interesting to watch.

Appendix Tables

Wheat: Exports from Argentina, by country of destination, averages 1936-40 and 1946-50, annual 1952-56¹

Destination	Average		1952 ²	1953 ²	1954 ²	1955 ³	1956 ³
	1936-40 ²	1946-50 ²					
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>
Brazil	35,209	19,361	925	43,057	28,020	46,551	23,233
Germany				1,935	19,046	9,646	12,965
United Kingdom	30,760	5,211	4	8,438	9,572	8,466	10,835
Chile	37	1,220	15	3,263	9,502	5,444	4,098
Japan				2,903	8,365	2,615	1,534
Peru	4,162	2,125	580	3,620	6,769	5,462	4,884
Belgium	10,264	993		1,527	6,124	4,437	2,556
Netherlands		227		2,236	5,043	8,040	6,643
Italy	7,691	14,746	11	11,520	3,977	20,589	14,057
Denmark				220	2,949	1,670	1,443
Switzerland		2,456		1,774	1,888	1,156	267
Paraguay	1,171	1,046	609	1,616	2,011	1,553	815
Austria		1,419		55	1,046	2,332	1,294
India		7,020	219	8,941	333		
Finland	605				588	3,607	485
Poland					2,249	8,179	13
Czechoslovakia					630	1,095	1,285
Others	30,724	22,022	15	1,510	1,982	838	7,023
Total	120,623	77,846	2,378	92,615	110,094	131,680	93,430

¹ Calendar years.

² Includes wheat flour in terms of grain.

³ Preliminary.

*Corn: Exports from Argentina, by country of destination, averages 1936-40 and 1946-50, annual 1952-56*¹

Country	Average		1952	1953	1954	1955 ²	1956 ²
	1936-40	1946-50					
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>
United Kingdom.	73,103	20,678	2,400	16,025	17,417	1,634	6,381
Germany.....	11,921	1,894	574	3,173	15,890	1,342	5,664
Netherlands.....		5,672		5,148	12,159	966	6,176
Belgium.....	28,762	6,660	2,963	4,340	5,968	3,141	7,531
Italy.....	4,800	2,031	24	4,117	4,002	3,402	5,211
Switzerland.....	481	1,942	426	1,072	1,701	678	754
France.....	1,558	9,138	12,296	3,443	7,486	2,109	6,970
Sweden.....	2,507	1,965	3,607	1,762	1,353	385	
Norway.....	3,763	752	79	118	821		
Denmark.....	6,403			136	1,704		143
Austria.....	852		779	961	1,715	80	217
Finland.....	1,551		789		595	630	244
Brazil.....	50	49		1,951			
Czechoslovakia ..					3,939	337	
Others.....	62,522	19,739	1,399	225	7,128	50	2,311
Total.....	198,273	70,520	25,336	42,471	83,878	14,754	41,602

¹ Calendar years. ² Preliminary.

*Rye: Exports from Argentina, by country of destination, averages 1936-40 and 1946-50, annual 1952-56*¹

Country	Average		1952	1953	1954	1955 ²	1956 ²
	1936-40	1946-50					
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>
Germany.....	102	806	504	6	2,509	440	549
Belgium.....	520	1,218		2,419	4,562	672	1,043
Denmark.....	809			660	2,165	388	312
United States....	442						
Italy.....	39	642		4,794	4,791	3,741	1,166
Norway.....	1,136	904	110	1,142	394	655	
Netherlands.....	1,045	465	245	2,708	4,910	1,939	1,048
Finland.....		679	1,842		1,335	1,169	699
Poland.....					9,816	3,153	394
Others.....	579	2,558	1,919	722	2,977	215	853
Total.....	4,672	7,272	4,620	12,451	33,459	12,372	6,064

¹ Calendar years. ² Preliminary.

Oats: Exports from Argentina, by country of destination, averages 1936-40 and 1946-50, annual 1952-56¹

Country	Average		1952	1953	1954	1955 ²	1956 ²
	1936-40	1946-50					
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>
Germany.....	1,241	829	476	48	3,388	1,872	3,404
Belgium.....	5,561	1,094		1,656	8,149	296	1,459
Denmark.....	1,144	365		276	6,732	558	76
United States....	126			2,295	1,635		173
France.....	966	1,694			76		1,572
Italy.....	1,358	515		1,452	1,702	1,092	5,923
Norway.....	102	41					
Netherlands.....	6,585	1,307	313	5,322	16,121	48	3,120
United Kingdom..	439	446					1,275
Sweden.....	635	378	885			120	
Switzerland.....		5,247	615	2,996	5,944	1,004	94
Uruguay.....	227	346		138			
Others.....	2,804	2,571	382	431	3,301	1,556	1,545
Total.....	21,188	14,833	2,671	14,614	47,048	6,546	18,641

¹ Calendar years.

² Preliminary.

Barley: Exports from Argentina, by country of destination, averages 1936-40 and 1946-50, annual 1952-56¹

Country	Average		1952	1953	1954	1955 ²	1956 ²
	1936-40	1946-50					
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>
United States.....		78					
Germany.....	1,739	489	2,527		12,754	10,639	21,909
Belgium.....	2,156	1,688		3,240	4,521	1,561	779
Italy.....	269	445		861	177	2,154	226
Netherlands.....	4,645	1,901	12	5,266	7,104	3,941	2,980
United Kingdom..	1,594	5,047	469	11,945	2,320	74	73
Uruguay.....	64	3,690		207			17
Brazil.....		203		156			
Switzerland.....		2,496	78	919	1,095	427	135
Others.....	2,037	4,325	1,741	2,405	2,570	3,977	623
Total.....	12,504	20,362	4,827	24,999	30,541	22,773	26,742

¹ Calendar years.

² Preliminary.

Flaxseed: Exports from Argentina, by country of destination, averages 1936-40, and 1946-50, annual 1952-56^{1 2}

Destination	Average		1952	1953	1954	1955 ³	1956 ³
	1936-40	1946-50					
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>
Germany.....	2,369	940	268	798	1,446	47	869
Belgium.....	3,556	314	119	156	1,278	.....	36
Canada.....	1,719	32	.....	.....	.....	.....	.....
United States....	7,745	1,930	.....	.....	.....	127	.....
France.....	6,212	2,224	647	969	3,023	394	79
Italy.....	1,809	99	62	1,666	2,855	3,547	769
Netherlands....	3,635	1,337	390	3,616	3,671	4,261	2,629
United Kingdom..	3,592	5,057	2,507	1,840	4,808	.....	1,489
Sweden.....	1,338	351	.....	578	643	.....	.....
U.S.S.R.....	.....	.....	.....	1,282	7,308	(⁴ )	.....
Others.....	19,301	4,927	219	2,490	3,764	9,037	2,280
Total.....	51,276	17,211	4,212	13,395	28,796	17,413	8,151

¹ Includes oil in seed equivalent.

² Calendar years.

³ Preliminary.

⁴ Quantity not separately listed.

*Wool: Exports from Argentina, by country of destination, averages 1935-39 and 1945-49, annual 1952-56*¹
(Actual weight)

Destination	Average		1952	1953	1954	1955 ²	1956 ²
	1935-39	1945-49					
	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>
Germany.....	41	2	9	20	20	19	9
Belgium.....	19	22	16	30	7	10	12
United States....	61	230	129	150	92	92	76
France.....	49	39	9	19	23	23	36
Italy.....	18	8	3	8	2	3	9
Japan.....	8	(³)	3	37	25	17	43
Netherlands....	3	7	6	10	5	6	.....
Poland.....	10	2	(³)	3	3	4	.....
United Kingdom..	82	5	43	47	24	50	28
Others.....	15	42	16	18	14	16	26
Total.....	306	357	234	342	⁴ 215	⁴ 240	239

¹ Calendar years. ² Preliminary. ³ Less than 500,000 pounds. ⁴ Revised totals: 1954, 210; 1955, 231.

Beef, chilled and frozen and canned meat: Exports by principal country of destination, averages 1935-49, annual 1950-56

Year	United States ¹	United Kingdom		Other countries		Total	
	Canned ²	Chilled and frozen ³	Canned ²	Chilled and frozen ³	Canned ²	Chilled and frozen ³	Canned ²
Average:	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds	1,000 pounds
1935-39.....	42,597	796,887	90,745	141,889	30,986	938,776	164,328
1940-44.....	50,523	870,090	128,524	12,992	26,269	883,082	205,316
1945-49.....	28,939	568,769	96,776	124,703	12,629	693,472	138,344
Annual:							
1950.....	98,682	307,079	44,473	85,622	16,736	392,701	159,891
1951.....	121,174	126,070	59,690	122,027	30,304	248,097	211,168
1952.....	83,534	119,875	5,465	92,152	27,699	212,027	116,698
1953.....	71,903	213,714	38,525	32,644	15,911	246,358	126,339
1954.....	57,269	194,935	49,727	31,129	45,975	226,064	152,971
1955.....	80,688	371,369	76,059	50,132	24,471	421,501	181,218
1956.....	56,222	545,588	60,071	256,476	43,342	802,064	159,635

Casein: Exports from Argentina, by country of destination, averages 1935-39 and 1945-49, annual 1952-56

Destination	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Germany.....	11,086	1,725	1,389	4,658	1,433	2,840	2,679
Spain.....	861	3,176					
United States....	5,797	34,702	21,380	48,933	44,072	57,604	43,223
Finland.....	2,384	767	2,075	2,866	1,801	2,238	.....
Japan.....	3,098	.....	1,761	4,383	1,929	1,268	1,874
United Kingdom..	8,176	10,306	516	11,369	8,208	7,555	7,247
Sweden.....	1,784	2,577	3,973	3,241	2,138	752	1,799
Belgium.....	.....	1,170	.....	.....	.....	227	686
Others.....	4,904	12,016	15,176	12,247	14,430	11,268	10,854
Total.....	38,090	66,439	46,270	87,697	74,011	83,752	68,362

¹ Preliminary.

Cheese: Exports from Argentina, by country of destination, averages 1935-39 and 1945-49, annual 1952-56

Destination	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
Bolivia.....	2	74					
Belgium.....	64	4,360	531	688	699	529	346
Brazil.....	4	1,396	.....	71	95	68	101
Chile.....	42	47	40	49	26	.....	2
Egypt.....	205	.....	130	500	57	4	75
United States....	1,550	8,785	2,562	4,550	2,811	3,056	3,320
Italy.....	470	1,894	238	269	.....	.....	.....
Mexico.....	.....	88	37	64	31	13	29
Panama.....	7	362	53	62	57	.....	55
Paraguay.....	256	406	108	247	351	.....	287
Peru.....	282	319	511	342	335	419	399
United Kingdom..	117	1,413	40	42	.....	.....	.....
Sweden.....	4	214	110	77	.....	.....	.....
Switzerland.....	.....	652	.....	157	18	.....	.....
Venezuela.....	218	1,479	591	1,964	2,343	2,405	1,788
Others.....	619	5,199	582	649	225	274	265
Total.....	3,840	26,688	5,536	9,731	7,048	6,768	6,667

¹ Preliminary.

Butter:Exports from Argentina, by country of destination, averages 1935-39 and 1945-49, annual 1952-56

Destination	Average		1952	1953	1954	1955 ¹	1956 ¹
	1935-39	1945-49					
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
United Kingdom.	11,911	1,728	57	9,021	15,454	16,041	21,724
Italy.....	243	1,323	141	9,054	3,472	1,605	2,319
Chile.....	101	2,756	353	1,962	3,801	.....	.....
Paraguay.....	112	130	.....	22	13	.....	.....
Peru.....	143	1,235	1,325	785	1,770	2,205	.....
France.....	1,422	1,750	741	104	139	3,973	5,282
Norway.....	.....	42	29	24	.....	.....	.....
Sweden.....	.....	59	17	24	.....	.....	503
Germany.....	.....	.....	.....	.....	.....	1,896	.....
U.S.S.R.....	.....	.....	.....	9,204	8,406	.....	.....
Others.....	4,639	13,702	285	2,796	839	2,625	3,909
Total.....	18,571	22,725	2,948	32,996	33,894	28,345	33,737

¹ Preliminary.

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